

ESTABLISHED 1880

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The Hardware, Stove,
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Air Heating and Venti-
lating Interests
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STATISTICS ARE NOT interesting, as a rule. With the exception of the numerals on the credit side of one's bank balance, figures make dull reading. There are times, however, when the mathematics of facts and events acquire an attractiveness from their connection with vital issues. During these critical days of reconstruction, the logic of statistics is needed to buttress our hopes for the continuance of prosperity. It is, therefore, an encouragement to optimistic views of business to ponder the figures in the report of the United States Comptroller of the Currency which has just been given to the public. From it we learn that the growth in the resources of the national banks in the last five years has been greater than the increase which took place in the preceding twenty-five years.

The resources of the national banks now exceed by more than a billion dollars the combined resources of all the state banks, savings banks, private banks and trust companies of the country as late as June, 1916, and are within one billion dollars of the combined resources of all other banks and trust companies, as shown by their reports of June, 1917.

The resources of the national banks of the United States at this time exceed the aggregate resources of the national banks of issue of England, the Dominion of Canada, France, Italy, the Netherlands, Norway, Sweden, Denmark, Japan and Germany, all combined, as shown by their latest available reports.

The year 1918 has already passed, and thus far there has been no failure of any national bank in any state east of the Rocky Mountains, and only one failure in the entire country—a small bank in California. There has been no such immunity from failure as this since 1870, when there were only 1,615 national banks in the United States, with total resources of 1,510 million dollars, as compared with 7,754 national banks at this time, with combined resources of 19,821 million dollars.

The circulation of all national banks November 1, 1918, was 675 million dollars, an increase of approximately a million and a half dollars over the last call.

The lawful reserve held by the national banks with the Federal reserve banks on November 1, 1918, amounted to 1,101 million dollars, a reduction of 12 million dollars, as compared with August 31, 1918. The excess of reserve held over the amount required on November 1, 1918, was 69 million dollars, a reduction of 38 million dollars as compared with August 31, 1918.

In addition to their lawful reserve on November 1, 1918, the national banks had with the Federal reserve banks in process of collection the further sum of 260 million dollars, which is an increase in this item over August 31, 1918, of 64 million dollars. The cash in vaults on November 1, 1918, amounted to 443 million dollars, which was an increase of 79 million over cash so held on August 31, 1918.

Cash in vaults due from Federal Reserve Banks November 1, 1918, amounted to 1,803 million dollars, an increase of 131 million dollars over the preceding call.

Of special significance is the fact that the increases in resources are widely distributed throughout the whole country. Of the above net increase of 1,777 million dollars shown, as compared with August 31, 1918, it is to be noted that 592 million dollars was in the national banks of the central reserve cities, 623 million dollars in the national banks of other reserve cities, and 562 million dollars in the country national banks.

These vast sums represent only a portion of the actual wealth of the United States. Enormous amounts are in daily circulation which do not pass through the banks. To maintain the highest functioning efficiency for the immense deposits of money in our national banks, confidence in the wholesomeness of American business is all that is necessary. The logic of the foregoing figures is that they form the basis for the exercise of a sound and practical optimism.

ACCORDING TO A STATEMENT made by F. T. Miller, Director of Division of Public Works and Construction Development of the United States

Promote Department of Labor, contracts for
Building eight hundred public school houses, totaling some eighty million dollars, have

been held up as a result of the war. This estimate is derived from only a partial tabulation of building conditions throughout America. It is believed that the completed tabulation will show that these school projects, now being held in abeyance, aggregate more than one hundred million dollars.

In round numbers, this is about one dollar per capita throughout the United States. As school buildings are customarily financed on twenty-year serial bonds, this means an installment payment of about five cents per capita per year by the people of this country, if they would have their school program put through at the present time.

Assuming that a decrease of twenty per cent in con-

struction costs might develop during the next four or five years (and this is regarded by many as a maximum decrease), the immediate completion of the nation's school program would involve an excess of only one cent per capita per year over the per capita cost, even if construction were delayed for several years.

The educators of the country ask, shall the country have its schools now at five cents per capita per year, or delay having them for four or five years in order to buy them at four cents per capita per year?

To interest the nation in forwarding this particular work is one of the undertakings of this new division of the Department of Labor. In this purpose it has the support not only of educators, but of sociologists and business men. They believe that the nation-wide lack of public school accommodations, which is known to all, is one of the earliest problems that must be solved with others that belong to the reconstruction period.

Through their local and state associations hardware dealers and sheet metal contractors can do much to hasten the resumption of work upon these projects. Their interests as citizens and as business men happily coincide in this matter. As citizens, they must favor constant improvement in educational facilities. As business men, they must advocate new buildings so that labor may profitably be employed and hardware and sheet metal products be sold and distributed.

FROM NO REASONABLE angle of argument can it be maintained that the retail merchant is entitled to the patronage of his community simply because his store is located in the neighborhood. There is much mawkish whining against mail order houses and department stores on the part of dealers who harp upon the obligation of the people to support their neighborhood stores. As a matter of fact, no such obligation exists either in law or ethics. Many householders strongly resent the language used by some merchants in their advertisements as bordering upon insult, for example, "Don't be a slacker. Patronize your neighborhood stores."

One suburbanite is quoted as saying: "Just because a man happens to start a drug store on the corner a block away from me, I don't see why this gives him any call on my trade. Just because a man thinks he must start a hardware store near me gives him absolutely no hold on me. I am a friendly Indian and will stand for almost anything within reason. But I must confess that this talk about building up our neighborhood does not interest me particularly."

"I live in a suburb just outside of Chicago. The principal charm of this place is that it is a town of homes. Every day I am bombarded with all sorts of talk to the effect that I must buy my groceries in Evanston, do my banking in Evanston, buy my hardware in Evanston—spend all my money in Evanston. There is held out before me the alluring prospect that if I do this Evanston will be built up. Now then, why am I interested in building up Evanston? The truth is I like it better as it is. Anyway, how is it going to build up that town for me to do all my buying there?

I can see where the business men would benefit and that's all.

"I make my money in Chicago and I don't see what claim Evanston has on it just because I happen to sleep in that town. I am told that my family lives there and that if the town is good enough for them to live in it is good enough for me to spend my money in. I pay well for the house in which my family lives. I pay taxes. I contribute to the church. I don't owe the town a thing. It is really the other way."

The enterprising, self-respecting retailer does not ask for charity. He solicits trade on the ground of service, not sentiment. Recognizing that there is no solid foundation of logic beneath the appeal to neighborhood interests, he seeks to gain good will through sound merchandising rather than through pleas for support. Uniform excellence of goods, reasonable prices, patient, intelligent, and sincere courtesy toward his patrons, and judicious advertising will equip him to compete with the attractions of the big stores—especially because he has the added advantage of convenience of location, personal acquaintance with his customers, and facilities for quicker delivery.

IF OUR MINDS WERE so constituted that we could keep the most important things constantly and distinctly in the focus of attention, there would be no need for repeating and emphasizing again and again certain self-evident requirements of business. One of these requirements which keeps slipping out of focus and becoming blurred into forgetfulness, is courtesy in dealing with customers. By this is not meant good manners of the perfunctory kind nor the parrot-like repetition of polite expressions. The mere utterance of the phrase, "I thank you," is not enough to fulfill the demands of courtesy. There is not much use in saying it, unless you sincerely feel the sentiment. Courtesy must be genuine to be of value. Good manners can be counterfeited, but courtesy must be minted from the pure metals of enthusiasm and loyalty.

THE DIFFERENCES BETWEEN the Trade Acceptance and other forms of obligation need to be defined from time to time in order to avoid confusion in the minds of those who have not studied this excellent instrument of credit. Briefly stated, a Trade Acceptance is a negotiable certificate of indebtedness arising out of a current transaction in merchandising. It is confined to credit obligations incurred from the sale of goods and must have a definite maturity. It differs from a draft in this, that a draft may cover various kinds of transactions, may be payable on demand, at sight, or at the end of a stated time. It differs also from a promissory note in the fact that it is limited to obligations arising from the sale of goods, whereas the promissory note may originate from practically any sort of obligation.

The Trade Acceptance signifies that a definite bargain is consummated between the seller and the buyer of goods, and an amount due with a distinct term of payment stipulated. Its advantages to the buyer are

manifold. It develops careful buying and enables him to keep better track of outstanding obligations, thereby avoiding the evils of over-extensions. It aids in the formation of the habit of prompt payment and gives the dealer an incentive for requiring prompt payment from his customers. It increases the chances of the buyer of small means to operate in successful competition with the large buyer. By reminding the debtor constantly that his credit may be put to the test, it provides a check against carelessness and extravagance. The Trade Acceptance makes capital more fluid by releasing funds now tied up in open book accounts and by substituting readily negotiable commercial paper for non-negotiable book accounts.

RANDOM NOTES AND SKETCHES.

By Sidney Arnold.

One of the encouraging phases of business during these days of transition is the steady development of optimism. This is a good world. There is plenty for everyone. We have an astonishingly immense fund of things in common—playgrounds, parks, art institutes, waterworks, postal service, governmental bureaus for the benefit of farmers, mechanics, and manufacturers, community clubs, choral societies, and scores of other agencies for the welfare, comfort, and happiness of the people. Pessimism ignores all these. Optimism uses and enjoys them.

* * *

Leon D. Nish, Elgin, Illinois, Secretary Illinois Retail Hardware Association, relates this rib-tickler:

The minister was shaking hands with a new member of his congregation, a girl fresh from Sweden and said, cordially:

"I would like to know your address, so I can call on you."

"Oh," said the girl, innocently, "I haf a faller already."

* * *

My friend John Frederick Balz of H. P. Chenoweth Company, Birmingham, Alabama, told me about a protest received by a local Draft Board from a mother whose son is in France.

"Ain't it just like them Frinch gals to be runnin' after our boys! My son writes that life in the trenches would not be so bad if the 'cooties' didn't pester them so terribly."

* * *

A judicious use of words spells the difference between success and failure in many transactions, according to my friend John H. Kitchen, Secretary Kansas City Chapter American Society Heating and Ventilating Engineers. He tells a story about a Scotch couple who had a boy whom they believed to be a mute, for up to his tenth year he never spoke a word.

"One day his father and he were at work in the hay field, and, getting thirsty, they made their way toward a jug of cold tea.

"The father took the jug and began to drink. As he gulped the tea down slowly the thirsty boy said:

"Make haste!"

"The father put down the jug in astonishment.

"'Why, Tam,' he said, 'you're talkin'! Why didn't you never speak afore?'"

"'Naught for to say,' says Tam."

* * *

The conversation turned toward the subject of witty rejoinders and my friend J. S. Bonbright of the Pennsylvania Lawn Mower Company, Philadelphia, Pennsylvania, gave the following illustration:

One day an Irishman entered a London butcher's shop and ordered a pig's head. The butcher, a rather fleshy individual, who always enjoyed having a joke at the expense of an Irishman, having papered the pig's head, resolved to frighten Pat by pretending to commit suicide, so he turned the back of his carving knife and pretended to cut off his own fat head.

"Oh, no, thank you, sir!" said Pat. "I don't want more than one pig's head at a time."

* * *

William Wynn, President Scheible-Moncrief Heater Company, Cleveland, Ohio, says that people do not always make the best of the opportunities which are given them. He cites the case of the villager whom Andrew Carnegie encountered.

The great ironmaster was passing through a small town and paused before the new Carnegie library. He was inspecting it when a native came along and remarked: "It's a mighty fine building, ain't it, stranger? I'll always bless the name of Carnegie."

"But you don't look as though you had much use for libraries," said the surprised ironmaster.

"Well, it ain't as much me as my wife," was reply; "she's got the job washing the floors twice a week."

* * *

I confess to be sufficiently human to get a good laugh out of an occasional pun. That's why I enjoyed the following play on words retailed to me by my friend C. G. Schroeter of Schroeter Brothers Hardware Company, St. Louis, Missouri:

First Clubman—"Halloa, Robinson, you're looking gloomy! What's up?"

Second Clubman—"Oh, the wife's gone to the West Indies for a few months."

First Clubman—"Jamaica?"

Second Clubman—"Oh, no, she went of her own accord."

* * *

In all my days I have never seen any damage done by a friendly smile or a cheery word. On the contrary, I know hundreds of instances in which great good was accomplished by these agencies of happiness. There is gloom enough in the world—nay, altogether too much of it. Let us do our share in dispelling it. Consider the jolly spirit of the subjoined lines and try to spread its influence:

Keep On Smiling.

It doesn't do a bit of harm

To grin;

It never causes much alarm

To smile;

Men have been known to laugh while at their work,

Yet win—

With cheerfulness to do their tasks nor shirk

The while.

So, if you like your job, as you pursue it,

And feel like smiling—why, my boy,

Go to it!

UP TO THE MINUTE NEWS SIFTINGS

The Mascot Stove Manufacturing Company, Chattanooga, Tennessee, has increased its capital stock from \$35,000 to \$50,000.

The Conservation Furnace Company of Indianapolis, Indiana, has been incorporated for \$5,000 to manufacture and sell stoves of all kinds. The incorporators are James H. Jackson, Albert H. Brewer and Bert M. Pace.

TELLS HOW TO FIGURE INCOME TAX.

Stove dealers, hardware retailers, and sheet metal contractors who are more or less puzzled as to the preparation of their income tax reports will find helpful instruction in the summarized methods for arriving at "net income" issued in a statement by William H. Edwards, Internal Revenue Collector for New York, as follows:

"The income taxpayer must ascertain accurately his gross income from all sources. There is his salary or wages including overtime pay and any bonus received as additional compensation, and a married man having children under 18 who are working should include the earnings of such children.

"If he sold any property at a profit the gain must be included in gross income. If he rented any property to other persons the total rents received in the year must be ascertained and from that figure a deduction may be taken for taxes paid on rented property, the necessary minor repairs, fire insurance, any interest he may have paid on mortgage and a reasonable allowance for annual wear and tear of the rented property. The balance is included in gross income for the year.

"Interest on bank deposits must be included; bond interest must also be included, except interest on municipal county or state bonds. Interest on United States bonds need not be included by the ordinary bondholder who purchased small amounts. Holders of large amounts of Liberty Bonds, however, should ask their bankers to write to my office for the rule applying to tax on such interest.

"Dividends on stock shares are income and must be included in the gross figures, although the law does not impose the normal tax on distributions made by domestic corporations.

"A person buying and selling merchandise must find his profits for the year on the following basis: First, ascertain the gross sales or total cash receipts, then add together the inventory at the beginning of the year and the purchase of goods for resale; from this latter sum subtract the inventory of goods on hand at the year's end, and the result is the cost of goods sold. This cost, plus necessary expenses incurred solely through the conduct of the business, is to be deducted

from the gross sales, and the result is the net earnings of the business.

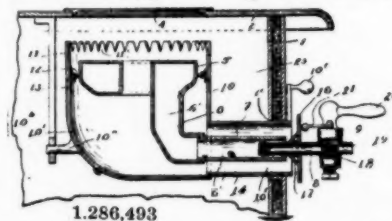
"Gifts and bequests can be eliminated, also proceeds of life insurance received by the beneficiary of an insured person. A person who cashed in an endowment policy need report as income only that portion which exceeds the total of the premiums he paid in all years on that policy. Annuities are not taxable.

"Dividends from policies must be considered income. Alimony is not income to the recipient, nor is it an allowable deduction on the part of the person who pays.

"From the total of all items of income there are certain deductions allowable by law. All interest paid on personal indebtedness and all taxes paid during the year are deductible, except Federal income and excess-profits taxes, inheritance taxes, and assessments for local improvements, such as sidewalks, sewers, etc. Losses incurred in business or trade are allowable, also losses arising from fires, storms, shipwreck, or other casualty, or from theft, in cases where such losses are not compensated for by insurance or otherwise."

GAS BURNER IS PATENTED.

Arthur L. Bailey, Jamaica Plain, Massachusetts, has procured United States patent rights, under number 1,286,493, for a gas burner described herewith:



In combination, a gas stove having a substantially closed burner chamber adapted to connect with a draft source, a plurality of burners, arranged in said chamber, means for supplying a mixture of primary air and gas to each burner, means for independently supplying secondary air to each burner, said primary and secondary air for each burner passing to the burner through the same inlet opening, and means for preventing the admission of said air into said burner chamber through any burner not in operation.

PRODUCES BY MODERN METHODS.

The Quincy Pattern Company, Quincy, Illinois, are well-known manufacturers of iron and wood stove patterns. It is self-evident that the modern methods of manufacture are far superior to those of the past and an inspection of the Quincy Pattern Company's plant will show why this is true. Machines of the latest type have been installed and the process of manufacture conforms to the most recent inventions. Patterns of the highest grade of efficiency are made by this Company and any inquiries addressed to the Quincy Pattern Company of Quincy, Illinois, will receive immediate attention.

THE COLE MANUFACTURING COMPANY CHANGES TO A CORPORATION.

With a view to greater efficiency of operation, the business of the Cole Manufacturing Company, makers of stoves and ranges, 3218-3238 South Western Avenue, Chicago, Illinois, has been changed from a syndicate to a corporation, chartered under the laws of Illinois. The officers of the company in its new form are:

President and Treasurer: H. A. COLE;

Vice-president: E. P. COLE;

Secretary: C. W. BRELSFORD;

Assistant Secretary: P. P. STONE.

The owners of the syndicate have sold out their interests to the new corporation and the business is carried on by the new company without any break in its continuity. The Cole Manufacturing Company will keep up the manufacture of Cole's Hot Blast stoves and ranges and Cole's Air Tight wood stoves. The corporation starts business with a comfortable surplus above its million dollar capitalization, without any liabilities whatever, and assumes all contracts and assets of the former organization.

GIVES HIGH STANDARD OF SERVICE.

The "Jewel" oil stove made by George M. Clark and Company, Division American Stove Company, Chicago, Illinois, is very strong and rigid. The high efficiency burners are said to save time and save oil. In the accompanying illustration is a four burner oil



Clark "Jewel" Oil Stove, made by George M. Clark and Company, Division American Stove Company, Chicago, Illinois.

stove with an oven, a high shelf, and a white splasher. This stove has many good features such as a heavy glass tank with carrying bail, strong high shelf, porcelain enameled hoods, chimney raising device, and good working qualities coupled with fuel economy. It has an olive green enameled finish. George M. Clark and Company state they are willing to furnish for advertising purposes, lantern slides, window cards, electrotypes for newspaper advertising, signs for walls or windows, and circulars printed in colors. Dealers should take advantage of such an opportunity for the

best way to obtain results is by advertising. For further particulars and copy of the company's handsome catalog Number 105, dealers should address George M. Clark and Company, Division American Stove Company, Chicago, Illinois.

DISCONTINUES NUMBER 9 LIDS ON RANGES AND COOK STOVES.

Among the changes inaugurated during the war as a conservation measure which bids fair to be continued is the elimination of the Number 9 lid on cook stoves and ranges.

The original object of building cooking apparatus with various size lids was to accommodate the round bottom hollowware which has long since been supplanted with flat bottom utensils.

Manufacturers also point out that a top with a Number 8 cover is of stronger construction.

There does not seem to be any particular reason why the elimination of the Number 9 top is not a progressive step and to the advantage of all concerned since for a long time it is only custom that has caused its sale, and the demand is growing less and less.

DON'T PAY TOO MUCH FOR WHISTLE.

Are you paying too much for your whistle?

Ben. Franklin did once.

When Franklin was a child of seven he was given a lot of pennies one holiday. Hastening into a nearby toy shop he voluntarily gave all he had for a whistle. A little later he discovered that he had paid four times too much for his toy. Realizing how many other things he might have had in addition he wept in vexation and got no more pleasure from the whistle. He never forgot the incident. Afterwards, whenever he was tempted to make too great an outlay in time, energy, or money he would say to himself, "Don't pay too much for the whistle."

Mark Twain tells a story of a man who plied a tug boat up and down the river. This man was terribly envious of a steamer which commanded much attention every time she blew a blast from her great whistle. Finally the man woke up to the fact that he could purchase just such a whistle and make as much noise with his little tug boat as the steamer. But after he got the big whistle he found his boat stopped every time he blew it. The engine had only enough power for the boat or the whistle.

Lots of folks are using up all their energy on some showy thing that gives them no comfort. Some are lavishing valuable time on a few unimportant tasks. Others willingly "blow in" an entire week's salary on one evening of frivolity, robbing themselves of all manner of pleasure for an indefinite period. Others sacrifice the best of their talents in pursuing some fruitless ambition. Still others forego the simple, natural joys of life in worshipping a snobbish ideal.

They are all paying too much for their whistles.

How is it with you?

Are you paying too much for your whistle? Or are there some 1919 War Savings Stamps in your life? Franklin's picture is on them; his ideas are back of them.

THE WEEK'S HARDWARE RECORD

Of Interest to Manufacturer, Jobber and Retailer

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 40 to 45 inclusive.

The Columbus Bolt Company, Columbus, Ohio, has purchased a site and will enlarge its plant.

The General Spring and Wire Company, Detroit, Michigan, has recently increased its capital from \$30,000 to \$75,000.

The Aluminum Goods Manufacturing Company, Manitowoc, Wisconsin, has purchased a site for future plant extensions.

The Garden City Spring Works, 2300 Archer Avenue, Chicago, has plans for a one story building to cost about \$60,000.

ISSUES PROGRAM OF THE TWENTIETH CONVENTION OF INDIANA RETAIL HARDWARE ASSOCIATION.

The Twentieth Annual Convention and Fourteenth Annual Hardware Exposition of the Indiana Retail Hardware Association are to be held in Athenæum Hall, Indianapolis, Indiana, January 28, 29, 30, and 31, 1919, with headquarters in the Claypool Hotel. Extensive preparations have been completed to make the gathering thoroughly representative of the retail hardware interests of Indiana. The program, which is given in full herewith, has been arranged with a view to obtaining as wide a discussion as possible of the problems with which hardware merchants of Indiana have to deal during the coming months.

Program of the Forthcoming Annual Convention of the Indiana Retail Hardware Association, Indianapolis, Indiana, January 28, 29, 30, and 31, 1919:

Monday, January 27th.
2:00 P. M.

Meeting of Executive Committee—Athenæum Hall, Lyric Room.

Tuesday, January 28th.
10:00 A. M.

Athenæum Hall—Registering Members, Exhibitors, Guests and distributing badges.
Extending Good Fellowship to all.

12:00.

Opening of Exhibit.

2:00 P. M.

Song—America.

Invocation—Dr. J. Ambrose Dunkel, Pastor Tabernacle Presbyterian Church, Indianapolis.

President's Address.

Address—"Our Boys Over There," Dr. O. D. Odell, Pastor Second Presbyterian Church, Indianapolis, recently returned from several months active service in Y. M. C. A. work in France.

A few remarks upon the life of our late Secretary, Melvin Lake Corey—E. M. Bush, Evansville.

Remarks by Guests and Friends.

Appointment of Committees:

Nominating.

Legislative.

Resolution.

Constitution and By-Laws.

Auditing and Press.

Wednesday, January 29th.
10:00 A. M.

Executive Session.

Song.

Secretary's Report.

Treasurer's Report.

Report of Cedar Point National Convention—Jesse E. McCoy, Cloverdale.

"Mark-Up and Profits"—S. R. Miles, Manager, Field Service Department National Retail Hardware Association.

Discussion.

2:00 P. M.

Executive Session.

Remarks upon Legislative Problems—A. W. McKeand, Director of Extension, Indiana State Chamber of Commerce.

Question Box.

Subjects for discussion:

Advantage of Lease Note in selling.

Implements and Stoves.

Trade Acceptances.

Readjusting Credits.

Discontinuance of Cash Discounts.

Standardizing Stocks.

Electing Delegates to the next National Convention.

Thursday, January 30th.
10:00 A. M.

Executive Session.

Song.

Address: "Reconstruction Problems"—M. E. Foley, Indianapolis, Chairman State Council of Defense.

Address: "Readjustment and Trade Conditions"—Herbert P. Sheets, National Secretary.

Discussion.

2:00 P. M.

Executive Session.

Question Box.

Report of Committees:

Constitution and By-Laws.

Legislative.

Resolution.

Auditing.

Nominating.

Election of Officers.

New and Unfinished Business.

Adjournment.

Friday, January 31st.
10:00 A. M.

Meeting of New Executive Committee, Athenæum Hall, Lyric Room.

Exhibition closes promptly at 12:00 M.

THE PACIFIC NORTHWEST HARDWARE DEALERS' CONVENTION HAS FAITH IN PROSPERITY.

Confidence in the continued prosperity of American industry was strongly in evidence at the Fourteenth Annual Convention of the Pacific Northwest Hardware and Implement Association which was held January 15, 16, and 17, 1919, in the Marie Antoinette ballroom of the Davenport Hotel, Spokane, Washington. The registration of members was the largest at any convention of the organization.

C. S. Robertson ably performed the duties of presiding officer and there was general satisfaction in the election of O. E. McCutchan of Deer Park as president for the next year and in the retention of Secretary Lucas for both this and the insurance organization, which declares a 50 per cent dividend. John Raymer was, of course, re-elected president of the insurance association.

Wednesday, January 15, 1919.

The convention was called to order at 10:20 by President C. S. Robertson of Bremerton, Washington. "America" was sung by the entire audience, after which the Rev. T. H. Harper pronounced the invocation.

Acting Mayor J. C. Argall, city commissioner, extended to the members and guests a cordial welcome to Spokane and expressed the hope that the convention would consider as of great importance the question of seeing to it that our boys coming back from "over there" get their positions back or are provided with suitable employment and that the Association would uphold Senator Jones' bill to do justice to returning soldiers.

Fitting response was made by President Robertson who expressed the appreciation of himself and the members at the cordial welcome extended on this as on many previous similar occasions.

A vocal solo by Kenneth Damon, accompanied by Miss Veda Simonds was greatly appreciated.

Motion by John Raymer of Reardan carried that the chair appoint a committee of three to draft resolutions supporting the Jones bill; also a resolution to the War Board that every man in camp who has a civil job calling him be released at once.

Secretary E. E. Lucas of Spokane suggested that resolutions should be drafted expressing sympathy for the family of J. W. Lipscomb of Seattle, a director, whose death resulted from influenza; also for L. M. Collins of Fairfield, whose daughter died recently.

The chair referred both of these matters to the resolutions committee.

Convention Committees.

The chair announced the following committees:

Finance and Auditing: John Smith, Walla Walla; W. L. Walker, Waukon; T. H. Herman, Genesee, Idaho.

Resolutions: R. S. Butterfield, Moscow; F. W. McCann, Coulee City; A. T. Holmes, St. John; A. F. Kramer, Almira; H. L. Thomason, Sandpoint, Idaho.

Legislative, Washington: S. C. Scott, Burlington;

Chas. Hood, Puyallup; W. A. Bell, Yakima; A. C. Ware, Spokane.

Legislative, Idaho: J. N. Nankervis, Moscow; R. S. Erb, Lewiston.

Membership: T. H. Herman, Genesee, Idaho; O. A. Welch, Coulee City; S. Cavanaugh, Auburn; E. H. Heberlein, Edmonds.

Trade Relations, West Side: A. L. Callow, Elma; F. A. Ernst, Seattle; S. Cavanaugh, Auburn.

Trade Relations, East Side: John Raymer, Reardan; H. A. Steinke, Spokane; C. E. Robertson, Spokane.

Community Development: A. L. Callow, Elma; C. S. Robertson, Bremerton; O. T. McCutchan, Deer Park; F. W. Kaser, Walla Walla; A. Z. Wells, Wenatchee; Geo. E. Berlin, Centralia; John Smith, Walla Walla.

President Robertson's Address.

The Wednesday afternoon session started at 2:30 with the singing of the Star Spangled Banner by the entire assemblage after which President Robertson delivered the annual address, which was a patriotic and inspiring appeal to the members to play a loyal and intelligent part in facing the new political and industrial problems before the nation. In the work of reconstruction he believed the building up, or perpetuating of a proper community spirit and developing our community interests, should be of prime importance.

He urged dealers to study their trade papers, buy of local jobbers, carry small stocks and turn them often. The "suggested retail price" book, freight auditing department and exchange lists, gotten out by the Association, were commended to the membership. He also urged that the Association should get behind the national implement inspection and repair week movement, plans to perpetuate many of the war conservation measures adopted for the elimination of useless types, styles and duplications in merchandise, and the Stephens standard price bill, which now appears to have a good chance of passing. In closing he expressed appreciation for the support and loyal work done by the secretary and other officers and members.

The Honorable W. J. Hindley, who has been a prime favorite at many hardware conventions, was given an ovation when he appeared upon the rostrum. He prefaced his talk with some complimentary remarks on the fine record made by the Association's insurance department, as evinced by the placards on the walls and then took up his subject, "Business Men and the Bolsheviki," with characteristic vigor. He spoke eloquently of the spirit and patriotism which made our soldiers victorious in battle and enabled our people at home to keep essential production up to a high point and raise many billions of dollars to finance the war, but, he urged, we are facing problems in the readjustment period that will test our citizenship and commercial stability as severely as in the most critical period of the war.

The essential difference between the bolsheviki and the sound-minded business man is that the former takes the position that everything up must come down while the latter takes the position that everything down must come up. The war has developed an es-

sential Americanism. We have discovered a tremendous latent power in this true Americanism. We have discovered that our public school and the church, notwithstanding deserved criticisms that may be made of them, are not futile but have played a great part in assimilating peoples of various nationalities, or foreign parentage, and developing an American consciousness, genius and spirit. We have shown what we can do when the American people unite behind a great cause.

"With the Yanks at St. Mihiel."

After an instrumental trio by Miss Louise Fisher, Miss La Follette and Fred Palmer, Dr. Thomas H. Harper was introduced and gave his famous lecture, "With the Yanks at St. Mihiel." He paid high tributes to the genius of Marshal Foch, the spirit of the American soldier and the leadership of General Pershing and graphically described the situation and developments which had reduced Great Britain and France to a stage of almost complete discouragement in March of 1918, the launching of the two last great German offensives, one of which brought them to within 42 miles of Paris again, the gallant stand of the marines at Chateau Thierry and then the turning point and the brilliant fighting of the American troops near Nancy and Verdun, at St. Mihiel and in the Argonne forest.

Wednesday evening the members and guests were treated to an illustrated lecture by Frank Branch Riley of Portland on the "Beauties of the Northwest," accompanied by a wonderful collection of northwestern scenic pictures in natural colors. Mr. Riley was introduced by Thaddeus S. Lane. He has wonderful descriptive powers, unusual wit and the lectures have been given and pictures shown largely in the east with the view of encouraging tourist travel to the great northwest.

Thursday, January 16, 1919.

The Thursday morning session was opened at 10 a. m. with the singing of "Columbia" by the audience, after which President Robertson introduced R. S. Butterfield of Moscow, Idaho, who delivered an interesting talk on the "Pacific Coast Repair Prices."

Tractors and Implements.

"The Relation of the Tractor to the General Implement Business" was the subject of a thoughtful address by A. C. Hagestad, of the Oregon Moline Plow Company, Spokane, Washington. He argued that the implement dealer is the logical man to handle implements.

The Melon Cutting.

The association convened Thursday afternoon at 1:45 and President John Raymer then took the chair for the insurance session. His annual address was as usual brief but much to the point. He announced as melon cutting No. 13 a saving to policyholders of 50 per cent, and said his only regret was that he personally had not been able to get more of this insurance and urged all policyholders to see if they are carrying all the insurance they should have now, and if they are carrying all with this company that they can. The more insurance we have, the less proportionate expense and the greater the profit.

The minutes of the 1918 meeting were read by Secretary Lucas, and approved. The secretary's financial report, next presented, showed insurance in force De-

cember 31, 1918, of \$3,169,190, of which \$1,780,150 is reinsurance. The cash balance and income for the year was \$89,992; total disbursements were \$22,730; leaving a cash balance of \$61,262, of which \$35,866 is surplus balance. The ratio of expense to premiums was 13 per cent.

Executive Session.

The convention then went into executive session. F. A. Ernst, a retail hardware man of Seattle, gave an interesting talk on "Local Clubs." He told about the encouraging degree of cooperation developed in the Seattle hardware club, and the value of their suggested price book and current market changes and the economy of trading over-stocks. He urged members to get the business men of their towns together at a banquet and then get together with the farmers, the value of combining efforts to combat catalog house competition.

There was a further general discussion of price labor and business prospects participated in by Messrs. Wells, Ernst, Welborn, Bilger, Gill, Erb and others. While a great variety of opinions were expressed, there was general confidence in the inherent and essential soundness of conditions in the United States and it was believed that the outlook in general, in this section is very good, better possibly than for the country at large.

John Smith presented the report of the nominating committee, offering the names of F. E. Kunz, F. A. Ernst, W. M. Thompson, J. W. Kinleyside, H. G. Jaeger and W. F. York as directors for three years; and F. W. Owen and E. T. Vickerman as directors to fill unexpired terms.

Friday, January 17, 1919.

The session opened at 10:15 with the audience singing the Battle Hymn of the Republic. "Tractor Profits and Cash Sales" was the subject of an interesting address by Norman Lombard of the Western Farm Credit Company, San Francisco. He emphasized the growing importance of the farm tractor and power machinery business and said he believed that many dealers were not taking on this business because it tended to be on a basis of cash, note or acceptance, fearing it might require too much capital.

Officers Elected.

Mr. Ernst reported that at the directors meeting the following officers were elected: O. E. McCutchan, president, Deer Park; F. A. Ernst, first vice president, Seattle; H. G. Jaeger, second vice president, Plummer, Idaho; E. E. Lucas was re-elected secretary treasurer. The executive committee consists of George Arland, W. L. Walker, F. W. Owen, W. F. York and H. G. Jaeger.

The directors had also decided to hold the semi-annual convention in Seattle in June after the 15th and President Robertson appointed Mr. Ernst chairman of the arrangements committee for the Seattle meeting.

The Friday afternoon session opened at 2 o'clock with the singing of "America" by the audience followed by a violin solo by Miss La Follette. The feature of the session was the address by A. T. Anderson on "Some Aspects of Government." The speaker pointed out that while we have advanced commercially

in a great many ways with our growth in population to over 100,000,000, still governmental methods are not materially changed from 130 years ago when we had only 3,500,000.

Resolutions.

After a vocal solo by Mrs. Lila Barbour Houck, Chairman Butterfield introduced resolutions which were adopted (1) favoring the bill introduced by Senator Jones for the deportation of alien slackers; (2) urging the War Board to release every man who has a civil job calling him in preference to or before others in the service; (3) expressing sympathy for deaths in families of members.

ACQUIRES PATENT FOR CLOTHES CLIP.

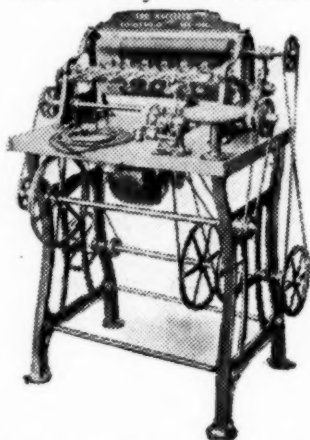
Under number 1,285,724, United States patent rights have been granted to Rowland Charles Jordan, Winnipeg, Manitoba, Canada, for a clothes clip described herewith:

A clothes clip consisting of a single strip of wire bent to provide two loops connected at the top by a single cross strand and having the ends of the wire bent to lie beneath and terminating under the cross strand and a metallic sleeve enveloping the cross strand and underlying ends of the wire and holding them together.



INCREASES THE DEALER'S INCOME.

During the war the Government took over the output of most of the safety razor manufacturers. As steel is still high in price and wages continue above normal in all manufacturing lines, new blades are expensive. Dealers should install a Hatfield Safety Razor Blade Sharpening Machine, shown in the accompanying illustration, made by the Hyfield Manufacturing Company of New York City. The manufacturers claim that this machine sharpens twelve blades every five minutes, and puts a keen, shaving edge on every blade. It is well constructed and the grooves cannot be worn in the rollers. There is a perfect oscillating movement back and forth of the rapidly turning rollers which has been adjusted so that the blades touch the top and the bottom rollers in a different place each time up and each time down so as to give



Hatfield Safety Razor Blade Sharpening Machine, made by the Hyfield Manufacturing Company, New York City.

The Hatfield machine not only sharpens razor blades but also sharpens dull scissors, shears, carving knives and kitchen knives. The installation of such a machine in a hardware store is a great business getter. People coming in to have cutlery sharpened are bound to notice the different articles which are for sale and this naturally results in many purchases. The Hyfield Manufacturing Company states that to any one desiring the infor-

mation, it will tell how many dealers are making from \$5.00 to \$12.00 a day with the Hatfield machine. This Company should be addressed at 21 Walker Street, New York City.

UNITED ACTION IS IMPERATIVE TO STOP INDUSTRIAL CASUALTES.

If the casualty list from industry could be printed every day in our newspapers the people of this country would be appalled at its size. In one year from accidents alone it is over eight times as large as the entire casualties among our troops on the battlefields in Europe.

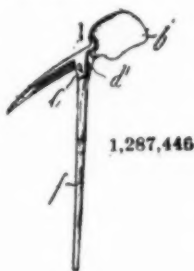
We have no records to show the number who are killed or disabled as a result of occupational diseases and diseases partially traceable to working conditions, but these undoubtedly are even more shocking. Each year adds a quarter of a million men to the total number of incompetents who, on account of disease or accident, are prematurely thrown on the scrap heap because their handicaps prevent them from continuing at their old occupation.

A few industries salvage these disabled and make them efficient and independent. Some industries give these employes easy jobs where they can make a living, but the very softness of the job robs them of all incentive and the bitterness engendered from dying ambition adds to their incompetency, so that many of these drift into despair. With proper training, their full mental energy and remaining physical capacities could make them highly efficient in much more gainful vocations. Other concerns settle with their injured workmen when they are legally responsible and then dismiss them. They drift from one job to another, constantly dropping into a lower scale, until finally they relinquish all effort to work.

This casting of valuable workers needlessly on the scrap heap must cease. Industry must blaze the trail in this conservation and reclamation of human life. The prevention of accidents, industrial hygiene and sanitation, adequate medical and surgical care for the sick and injured employes, adequate compensation during periods of disability, and better living and working conditions for all employes are the proven methods which will stop this human wastage.

PATENTS COMBINATION TOOL.

John Francis Ryan, Taggerty, Victoria, Australia, has been granted United States patent rights, under number 1,287,446, for a combination tool described herewith:



As a new article of manufacture, a combination tool comprising a tool member, a head centrally secured thereto and having therein a tapered straight sided socket and also a round socket, and a handle adapted at one end to fit the tapered straight sided socket and at the other end to fit the round socket.

Some men trust to luck in this world, and others are lucky to get trusted.

EXHIBITS IN AMERICAN ARTISAN WINDOW DISPLAY CONTEST

WINDOW DISPLAY IS INSPIRED BY THE LIBERTY LOAN CAMPAIGN.

It is easier to row with the current than against it. This is another way of saying that the less the friction the greater the proportion of power which can be applied to performance. The mechanics of selling are subject to the same laws as those which operate in the domain of physics. The less friction there is in obtaining and holding the attention of the prospective customer the greater is the amount of persuasion

sands went abroad to fight for world democracy. Many died in the conflict. The war and everything connected with its prosecution occupied the foreground of the nation's thoughts and emotions. The people gave willingly of their substance to help their Government. Liberty Loan campaigns met with hearty and generous support.

The window display shown in the reproduced photograph, was placed on exhibit during one of these Liberty Loan campaigns. It, therefore, had the immense advantage of being in harmony with the popular in-



Window Display of Stoves and Accessories Awarded Honorable Mention in AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition. Arranged by Joe A. Young for the Young Hardware Company, Bellevue, Iowa.

which can be applied to the actual transaction of inducing the patron to buy.

In designing a window display, the same law holds true. It is easier to row with the current of popular interest than against it. Therefore, more positive results can be achieved by connecting a window exhibit of commodities with some subject which is the dominant topic in the public mind. An association of ideas is thus established which arrests and sustains attention. In other words, the friction of indifference and of preoccupation with other matters is at a minimum in such circumstances. Not only is there no opposition to overcome, but there is a trend in the same direction which helps carry the influence of the window display to a successful issue.

Admittedly, during the terrible European war, the people of America were stirred out of the even tenor of their ways. Fathers, brothers, sons, and sweethearts were enlisted or drafted into the army. Thou-

terest. This exhibit was arranged for the Young Hardware Company of Bellevue, Iowa, by Joe A. Young and was awarded Honorable Mention in AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition.

The description accompanying the photograph of this window display explains that it was inspired by the lithograph distributed by the Government, entitled "Provide the Sinews of War—Buy Liberty Bonds." This lithograph was displayed on the bottom of the window, near the center.

Above it, was the card we made with our definition of the sinews of war, namely, "The Sinews of War. Food—Munitions—Warmth."

(1) Food was represented by the products of the harvest. A shock of corn in the center of background, with ripe ears of corn peeking from the husks, and at the base, one large pumpkin in center and a smaller at each side, with a number of half-husked prize ears

of corn, between. At each end of window was a sheaf of oats and wheat.

(2) Munitions were represented by a stack of three old army muskets with bayonets, relics of the Civil War and at the base of these, a pyramid of 2,000 old, large calibre bullets, which had been purchased from the boys for old lead, the boys having dug them from the bank behind an old rifle range. Fully 100 people came in to ask if these bullets were from "over there" in France.

(3) Warmth was typified by 2 Heating Stoves and 2 Oil Heaters and was the subtle connection with goods we had to sell.

In each corner of background was a large cluster of beautiful oak and maple branches with leaves of glorious Autumnal tints. The bottom of window was covered with Art Inlay Stove Boards of a greenish cast, harmonizing beautifully.

Government lithographs "Wear Your 4th Liberty Loan Button," "Think, Have You Bought Your Limit of 4th Liberty Bonds," etc., were displayed tastefully, while flags added to the patriotic aspect.

MISREPRESENTATION HINDERS FLOW OF PROFITS INTO THE TILL.

Apart from the moral issues involved, misrepresentation of the value of goods in advertisements is harmful to the success of a business. In the long run, it destroys confidence in the reliability of the merchant and the quality of his commodities. It is for this reason, as well as from ethical motives, that the Associated Advertising Clubs of the World are carrying on an educational campaign for truth in advertising. A recent bulletin of the organization gives the following helpful lesson:

A woman was heard, not long ago, to read an advertisement of \$5 hats for \$2.98, and to express a wonder that a store could sell them at such a low figure and still make a profit, for she did not believe the store proposed to lose money.

"Think what a profit I would have paid them at \$5.00," she said.

That is one side of the story, says a bulletin from the National Vigilance Committee of the Associated Advertising Clubs of the World.

The other side is that a great many other women refuse to believe that the article advertised was ever worth the higher figure named—or \$5, as in this case.

"Usual value," or "value" or "worth" are destructive advertising expressions, the bulletin from the committee declares. They dull the appeal of advertising. When a store does have a real sale to move off odds and ends, a great many readers of its advertisement are in the same attitude as the men who declined to come when the little boy in the old story called "Wolf, wolf!"

It is being proved, the committee says, that business of a more permanent character can be built without such statements. If there has been a special purchase, a store can get a crowd by announcing that a fortunate find has been made by its buyers. It is needless to "compare prices." Business men, says the bulletin from the committee, are learning that truth-in-

advertising has an economic value, and that in the long run, it pays to understate rather than overstate in an advertisement. The understated advertisement may bring fewer people, at times, but it will sell more goods, for when the customer is surprised to see such goods at such a price, sales are more readily made. There is less of a tendency to "shop around."

"No advertiser can afford to take the stand that his advertising policy is correct merely because his advertisements sell goods," says Merle Sidener, chairman of the National Vigilance Committee of the advertising clubs. "There is more than this to success. Advertisements and store policies must work together in the making of customers, not the mere sale of goods. Many a store which has had wonderful "special sales," has in the end been forced to change its policy or go out of business, when these sales have been based upon deception."

The bulletin points to two stores—one a clothing store in Indiana, the other a millinery store in Ohio—which can draw enormous crowds to special sales, using small advertising space, simply because the owners have not advertised bargains day after day, but have advertised bargains only when they actually had stock reduction sales.

In another instance, it is the custom a department store, when selling "seconds," to mention the fact that the goods are especially priced because of small imperfections, and it suggests to customers that they ask the salespeople to point out the defects in each article.

A similar policy has been followed by a clothing store in one city, with equal success.

It pays to be truthful—it brings better profits, declares the vigilance committee, and this opinion is based upon the actual experience of many leading stores.

HAVE CAPITAL AND ASSETS ENOUGH FOR GREAT PROSPERITY.

The prosperity of a nation is in proportion to the productive work of its inhabitants. The end of the greatest and most destructive war as regards materials in the world's history, has brought enormous world needs for production and construction to repair the ravages of war, and to supply the needs that have accumulated during years of suspended ordinary peace requirements. Is there any country so fortunately in a position to meet this demand as we are, by reason of our capital and the vast assets we have created during the war, which have given us a financial strength greater than any other country; our superior natural resources and raw materials; the intelligence, ingenuity, adaptiveness and intensity of our artisans and workmen, and the ability, courage and initiative of our leaders of industry for whom no proposition so far has been found too great to be successfully undertaken.

The end of the war opens to our country a vista of intense business and manufacturing activity and attendant prosperity, a period of full employment at high wages, and therefore high prices, which may be expected to last for several years.

Idleness is the fool's continuous holiday.

GIVES DETAILS OF NEW SYSTEM OF ACCOUNTING FOR THE USE OF RETAIL DEALERS.

(Continued from January 11th issue.)

A small blank book should be provided with two columns headed: "Cash Sales" and "Charge Sales." At the end of each day, unless the total is obtained by machine, each cash sales slip should be entered in the cash sales column and footed; the total of the footing of the cash sales as shown in this column is the amount to enter in the cash book on the receipt side under the head of cash sales.

Recording Charge Sales.

There are a number of forms and methods of recording charge sales to customers. Manufacturers of sales slips, cash registers and other prepared devices have simple forms for this purpose that can be seen at their offices.

One of these plans, the duplicate of the sales slip, is filed alphabetically in a cabinet; no further bookkeeping is involved than bringing over the amount of his unpaid balance as each new sale is made to the customer, the slips remaining in the alphabetical file until the account is settled.

In another form a sales slip book is used for each customer, with his name printed on the outside. When a charge sale is made to him his book is taken from an alphabetical shelf and the sale recorded. Where this is done the book should not be put back in the alphabetical file until the end of the day, when the total of the day's sales are added.

We prefer not to recommend any particular manufacturer's system. All that is required to fulfill the common sense of simple bookkeeping is that some form of individual record of sales and some form of gathering the total for each day be provided; also that each sale slip show the number of pounds, pieces or packages of each article purchased, the price of each, and the total of all articles, with the name and address of the customer plainly written thereon.

Under the head of cash sales a small memorandum book is suggested, with two columns for the summary of sales. At the end of the day in this book should be entered each charge sale under the column "Charge Sale" and the total amount footed up. This book will show the merchant his total sales for the day—charge and cash. This book should be kept very carefully from day to day, so that at the end of the month he will know the total business done.

By whatever means the charge sales are recorded the customer should immediately be credited with cash paid in settlement of his account or on account of his unpaid balance. The credit to the customer should first be made on either a credit slip, as provided by some system, or on the charge slip as a deduction from the balance shown thereon. During the day these credits should all be entered in the cash book, giving the date and amount. Instead of entering the total only the name of each should be recorded as having paid his account, or part of his account, on that date. This helps to avoid disputes and mixing of the cash received from customers on account from cash sales or other sources.

In the column in the cash book headed "Collection of Customers' Accounts," each item should record the date, name of customer, whether in full or on account and the amount. In more elaborate bookkeeping systems, a regular ledger account would be opened with each customer—card, loose-leaf or bound. The customer's account in the ledger would show the regular debits and credits, and from the cash book to this ledger account would be posted each cash item received.

But under this simple plan of bookkeeping it is not necessary that a regular ledger be kept. It is necessary that the sales slip, showing charge sales, be carefully filed and retained until the account is settled. The copy belonging to the merchant should be bundled and marked on the back: "Charge Sales Slips fromdate todate" and kept for future reference.

Trade papers issue weekly statements showing the wholesale prices of all articles. The prices used in the nearest one to January 1, 1919, should be used as the values in calculating the inventory.

When an inventory for the first six months after the installation of the system is taken, let us see how the retail merchant may close his accounts and strike a balance for the six months:

Semi-Annual Statement.

Inventory at the beginning of the six months.	\$.....
Purchases of merchandise paid for, as shown by the second column in the cash book.....	\$.....
Purchases of merchandise unpaid, as shown by the unpaid invoices in the unpaid invoice file.....(add)	\$.....
Total of all merchandise purchased... (add)	\$.....
Total to be accounted for.....	\$.....
Less inventory of merchandise on hand at the end of the six months.....	\$.....
Total cost of merchandise sold during the six months	\$.....
Total sales during six months, as shown by the cash column total and charge column total in the sales summary memoranda book....	\$.....
(Subtract total cost merchandise sold from total sales)	
Gross profit for the six months.....	\$.....
Less expenses, as shown by the first column in the payment side of the cash book, to which should be added the unpaid expenses as shown by the unpaid expense file.....	\$.....
Balance, net profit for the six months.....	\$.....

It is planned that this system should begin not later than the end of January, 1919, or before that if possible. Those who have not already a plan of bookkeeping similar to the plan now being described should inform themselves of this system and prepare to install it as soon as possible.

A careful inventory of stock on hand should be taken. No special form of inventory sheet or book is

required. For a small store a cheap blank book may be obtained from a local stationer. All items of stock should be entered and the cost price extended and totaled. This should be as near a cost basis as practical for retail merchants.

While this system does not provide for prorating within the six months such expenses as are paid only once a year, there are many of the smaller merchants who could not be expected to know enough about bookkeeping to prorate expenses and to open separate accounts. For those who have progressed further in business experience, more satisfactory bookkeeping results can be obtained through the adoption of more bookkeeping records.

This system is intended to reach the class who have no bookkeeper, or who have not sufficient business experience to understand bookkeeping; for that reason it becomes necessary to base the bookkeeping plan recommended on as nearly a cash basis as possible, which must, of course, eliminate the pro ration of expenses.

The Assets and Liabilities.

Now, as to the merchant's financial standing. There are several facts pertaining to assets which he can obtain from the foregoing:

1. Cash in the drawer and in the bank, as shown by the cash book balance.
2. Merchandise on hand. This is shown by an inventory just taken.
3. Accounts due from customers. To obtain this the sales slips or sales books or ledger, if kept, should be examined and the amount of each unpaid balance set down on a sheet of paper; the total thereof is the amount due from customers.

No provision is made here for ownership of the building, or for assets in the form of fixtures or investments in any other form of assets. The small merchant in most cases has no assets of this kind. His cash account due and his merchandise consists of his total available assets. For those who own other assets additional bookkeeping should be provided.

The Liabilities.

As to liabilities, the total unpaid expense bills and the total unpaid merchandise bills, as shown by the two files, will form the total liabilities for all bills rendered. This, of course, will not include bills for taxes, if any, or other bills not rendered at least once in six months. In that case the accurate balance of his accounts will have to be postponed to annual balancing, although in the meantime the six months' balance will show him much valuable information.

If the merchant has borrowed money from the bank or from a friend, or given a promissory note for his merchandise, such transactions should be carefully recorded in the book of his sales summary memoranda book, so that he may enter any liability not shown in his cash and unpaid bill files.

Assuming that there are no liabilities other than those already described, he will now have at the end of each six months the following:

Total assets.....	\$.....
Total liabilities.....(deduct) \$.....	
<hr/>	
Balance, net worth or capital in the business.\$.....	

By comparing this balance with the balance six months previous he will find whether he is gaining or losing. It should then be confirmed by the profit and loss statement described above. In other words, the net profits of the business should be just the difference between his net worth at the beginning of the six months and at the end of the six months, after subtracting from the net profit such money as the proprietor may have taken out of the business for his own use, and which he has not charged as an expense in the expense column.

The Reason for This Simple System.

It must be remembered that this simple system is intended for those who keep no books at the present time. It is hoped that if the small merchant will adopt these recommendations his interest will be stimulated to the point where he will desire to add further bookkeeping methods.

Summary.

This simple system of bookkeeping provides for at least the following books, forms, etc.:

1. Cash book.
2. Sales sheets, with carbon copy, if possible.
3. Book for charge customers—carbon copy pad book or ledger.
4. Cash register or cash till.
5. Daily summary of sales—small blank book.
6. Files for unpaid bills and invoices.
7. Inventory book.

MAKES VARIOUS ICE CREAM FREEZERS.

The North Brothers Manufacturing Company of Philadelphia, Pennsylvania, makes several different brands of ice cream freezers, one of which is shown in the accompanying illustration. These freezers possess automatic twin scrapers which insure automatic, positive and continuous scraping of frozen cream from the side of the can. The scrapers are hung on the dasher so their lower ends rest on the bottom of the can and the friction between the ends of the scrapers and can bottom when in motion moves the scrapers against the side of the can and holds them there continuously. This device has been patented by the Company. The cans have drawn steel bottoms which will not break or fall out of the body of the can.



Blizzard Freezer, made by the North Brothers Manufacturing Company, Philadelphia, Pennsylvania.

The body of the can is made of heavy tin plate and the top of the can is strongly wired and turned over. The pails are of pine with electric welded wire hoops guaranteed not to fall off or break. The gears are completely covered so that neither ice nor salt can get in the cogs nor the fingers be caught. All inside parts in contact with the cream are heavily coated with pure block tin and the outside parts are smoothly and heavily galvanized. The ice space is arranged so that the smallest possible amount of ice and salt to freeze are used. For further particulars about the ice cream freezers made by this Company, dealers should address the North Brothers Manufacturing Company, Philadelphia, Pennsylvania.

HARDWARE MEN ELECT OFFICERS.

At the annual meeting of the Milwaukee Retail Hardware Dealers' Association, Milwaukee, Wisconsin, the following officers were elected: Fred J. Witzel, president; Oliver Butter, vice president; Edwin J. Kraus, corresponding secretary; Max Gruenewald, financial secretary; Joseph T. Stollenwerk, treasurer; executive committee: August Schupinsky, J. Klumb, George Freitag.

ANNOUNCES POLICY OF CONSERVATION.

The matter of cutting out needless styles and finishes in articles of hardware is absorbing the attention of manufacturers in many directions. It is looked upon by the Government as being of so much importance that the officials of the Department of Commerce have expressed their desire to cooperate with industries in preserving the conservation schedules adopted at the request of the War Industries Board, with such modifications as will make them applicable to commercial needs.

One of the first manufacturing companies to make formal announcement of the adoption of a definite policy of conservation is Fayette R. Plumb, Incorporated, Philadelphia, Pennsylvania. In a circular to the trade explaining the advantages of the policy, the following statements are made:

An analysis of our records, when the Conservation Division of the War Industries Board first requested Conservation Lines for the period of the war, convinced us that what seemed to be a drastic step, would really bring a lasting benefit to our trade and to ourselves. We found that 90 per cent of our sales were in 10 per cent of our items. This being the case, it was self evident that it would neither pay us to make or jobbers to stock the multiplicity of sizes and patterns such as they had been doing in prewar times. We, therefore, have approached the question of adding items to our much shortened line, with the one thought in mind, to make what was needed for commercial use, but to make no dead stock.

We know that we are offering the best and most complete line of usable tools that our experience can suggest and feel that you will agree with us when you check up the line, and know that you will agree with us if you check up your sales.

The shorter line means to you:

1. Quicker turnover, because salable items move fast.
2. Less tied up capital. It takes less goods to carry an ample stock of this line than a broken stock of the old line. This is an important consideration at present values.
3. A complete stock because it is easy to keep track of and replenish.
4. No dead stock or slow sellers. They eat up the profit of the hardware business.
5. Less bin space needed. You can release this space where it will do you more good than carrying dead items.
6. Less detail in your selling, buying and adminis-

trative work. This is quite important, but generally overlooked.

As to the finishes, you will note that they are ample for all classes of trade, but we would call to your particular attention that on such items as miscellaneous handled hammers, we have adopted the hand forged, non-rusting finish, which is not only a beautiful finish but likewise desirable from the non-rusting standpoint.

Tools of these patterns, not being sold so frequently as the balance of the line, are more liable to rust on the dealer's shelves, when polished, and particularly liable to do so in actual use.

CALENDAR IS CLEVERLY DESIGNED.

With the appropriate and expressive title of "Bagged in France," the 1919 calendar issued to the trade by the Hercules Powder Company of Wilmington, Delaware, shows a picture of a man in hunting garb standing in front of a newly opened box from France. He holds a German officer's helmet in one hand. The box has been packed with copies of French newspapers to hold the helmet in place. It is evidently from his son. Seated in a wicker porch chair holding the photograph of an American officer in her hand, is his wife. In the foreground stands a hunting dog looking up at the trophy of war in the hand of his master. The picture measures 19 by 13 inches and is beautifully colored.

PERSISTENT PUBLICITY PAYS.

"Some business men," said a famous manufacturer, "believe in shutting down on advertising during hard times. I don't. That is the very time to advertise, in my opinion. That is the principle I acted upon when the panic of 1907 came along. That year I jumped my advertising from \$55,000 to \$80,000."

It is said that the business in question reaped a harvest as a result of his judgment in the matter of persistent publicity, even in the time of depression. His competitors practically gave him the field. He occupied it so that when the time came for the change in business conditions it cost the others more to come back than it did him to stay where he was.

Too many advertisers do not look far enough ahead to realize that dull times must change for the better, and when business is receding the necessity for creating an increased demand becomes imperative. To keep attention focused on the goods you have to sell requires judgment and belief in the ability of the people to be able to purchase in larger quantities, or better qualities, at some near time. The merchants or manufacturers who do not constantly appear before the public are soon forgotten. Advertising has the effect of stimulating interest and sustaining it.

There is a great psychological problem in advertising; and while certain business concerns may not be able to carry out publicity campaigns when business is not up to their standards, the idea of keeping in the public eye even when sales are falling off is one especially to be considered.

It is better for a man to do a little kicking than to develop into a human football.

HARDWARE MANUFACTURERS AGREE AS TO THE BUSINESS OUTLOOK.

The Service Department of the American Hardware Manufacturers' Association has just published a compilation of opinions regarding the business outlook. It is derived from 263 replies received about the middle of December in response to questions sent out in advance of the convention of the organization held at Atlantic City, New Jersey, December 11, 12, and 13, 1918. The replies place the questions in the following order of importance; prices, labor, governmental control, ownership and price fixing, demand, export and our merchant marine, conservation, cancellations, tariff, standardization, cooperation between manufacturer and distributor, trade acceptances and taxation.

These factors are set down under the 114 classes of hardware products made by these manufacturers. The products are alphabetically arranged.

A summary proves the following to be the consensus of judgment or intent of our manufacturers:

1. Employers almost unanimously express a desire for the workman to receive a fair wage and the best working conditions.
2. They concur in the thought that those who went into the service should be given preference in re-employment.
3. They agree in the economic principle that wages will come down only simultaneously with the cost of living.
4. The majority favor governmental price fixing, especially of raw materials, for a limited period to enable them to use up certain high-priced stocks, but suggest that prices will gradually work down to a normal basis.
5. The greater number concede that after-the-war problems are more difficult to solve than were the war problems.
6. Practically all agree that opinions are more or less of a guess because the present period is without precedent.

Builders' Hardware.

In regard to builders' hardware, it is pointed out that it is necessary to combat the idea of curtailed buying because of the impression that prices are going to be lower. Such a condition will bring things to a standstill. If we go on buying normally, we will get through this period without any embarrassment. It is also noted that greater cooperation between buyer and seller is essential in order to get back to normal. The general trend of opinion is that prices will decline in the near future because the price of labor and raw materials is going to come down. One manufacturer believes that in the course of six months or a year when demobilization has been effected that there will be such peace time demands as to cause prices to soar again to their present level. Only one manufacturer can see no change in present prices because of the labor situation.

It is felt that the returned soldiers will complicate the labor situation, and as the scarcity of help diminishes the wage problem will become a delicate one to handle. It is estimated that no variation will occur

until after next summer, and if wages do descend, they will never reach their pre-war level.

The present tendency to delay manufacturing and buying because of the existence of a belief that prices of raw materials, such as copper and steel, will decline with the slowing up of government demands, is deplored, because all indications point to very heavy demands on account of the depletion of stocks. When demobilization is accomplished, huge peace time demands are anticipated.

Prospects as to Cutlery.

Concerning cutlery, there are several variations of the theme that prices will remain where they are. The first one is that they will remain stationary until the conclusion of the peace meeting, when they will decline slightly as business readjusts itself to a peace basis. Another is that they will not recede from their present level for another year because 80 per cent of the manufacturing cost is labor and there is no indication that wages will be lowered. Still another is that they can not be revised "for some time" because of the labor situation.

Over half of the replies received assert that there will be no reduction in the price of labor because of various factors, the chief one being the high cost of living, and the second one the scarcity of skilled labor. One manufacturer says that wages should be reduced very slowly, because rapid reduction would involve trouble with the labor unions and in addition would cause a big turnover. Another thinks that manufacture for home consumption can only absorb a small percentage of the men now in the service and the war workers, and he presents the query as to whether or not the export business can not be so increased as to take care of the surplus.

On the whole the prospects are excellent. The following extract from the reply of a prominent concern is notable: "The demand for pocket knives and other cutlery will also be greater than the possible supply, for a long time to come. Previous to the war, 60 per cent of the cutlery consumed in this country was imported, and we do not believe that it will be possible for the imported cutlery to make itself felt for at least eighteen months."

Hammers.

Prices and cost of labor are the two chief concerns of these manufacturers and they are in harmony regarding the outlook of future prices of their product and the labor situation.

They are agreed that there can be no cut in prices as the greater part of the cost of manufacturing this product is labor.

They are also agreed that there is no indication of a reduction in the cost of labor.

Handles.

Because of the difficulty in obtaining timber and labor, manufacturers are agreed the present prices will remain firm for some time to come. Several predict that prices will soar even higher and justify their opinion by the citation of items the cost of which is abnormal. Only one manufacturer can see any eventual decline in the price of handles. Using his experience in the Civil War reconstruction period as a criterion, he predicts lower prices at the end of the year.

Labor is a serious problem in this industry. The opinion prevails that wages will remain unchanged because of the high cost of living. It is believed that the absorption of the men in the service into the ranks of industry will have no perceptible influence on wages. In fact, labor costs are mounting because the men are demanding shorter hours at the same pay.

Saws.

Because of the accumulation of large stocks of high priced raw materials, the present level of prices will be substantially maintained for some time, is the general opinion.

It is affirmed that the price of labor will not be materially reduced.

It is felt that government control of public utilities is not desirable, but if they are to remain in the hands of the government, rates and revenues should be under the control of the Interstate Commerce Commission.

The losses sustained by manufacturers, through indiscriminate cancellation of orders is felt to be unjust, and it is urged that manufacturers endeavor to hold the jobbers to their contracts.

All views of the future are highly optimistic because of the huge demands which the manufacturers see pouring in upon them.

Tools.

A minority are convinced there will be a rise in prices, one ascribing it to the removal of governmental restrictions on iron and steel. One manufacturer states that he may raise his prices possibly as high as 10 per cent on some items, these prices to be in force until July 1 next. A very small number predict prices lowered gradually, but not for some months, based upon the loss of government orders. The great majority declare present prices will remain stationary, two naming a period of from three months to a year for the operation of present prices. One manufacturer emphatically advises not only other manufacturers, but jobbers and dealers, not to cut prices because it will have a tendency to destroy confidence.

The majority predict a decline in wages eventually, but it will not occur until the cost of living also recedes.

One manufacturer maintains that labor is inefficient, while two others contradict him.

It is thought that we ought to shorten terms and get nearer to a cash basis. The adoption of the trade acceptance is urged.

Two feel that the future is uncertain and they are, therefore, going slowly, living from hand to mouth. The others see only unprecedented prosperity, one enthusiast saying that it will last for five years at least. The admonition to be loyal and patriotic is given, while another manufacturer advises not to think of reduced prices and hard times, and not to cross bridges before we get to them.

Wire Cloth and Wire Specialties.

The sum total of opinion is that present prices will prevail for some time. If there is going to be any reduction, it will be on goods the price of which has been artificially high. One manufacturer predicts a scarcity of screen wire cloth next season, and this, of course, will help to keep the price up. Huge future demands that are expected will also be a factor in keeping the present price up.

The prevailing opinion is that there is no justification for the reduction of wages until the cost of living is reduced.

Washing Machines.

It is declared that present wages should be maintained; consequently there will be no reduction in the price of these articles.

It is maintained that by the dropping of 300 non-essential styles it has been proven that conservation is the keynote of increased production.

"Highly optimistic"—"Speaking for our particular industry we can see nothing but a glorious volume of business in sight"—thus runs the tenor of the comments.

WANTS CATALOGS AND CIRCULARS.

Having decided to enter the hardware, farming implement, and auto supplies business, J. H. Uplinger of Kingston, De Kalb County, Illinois, wants catalogs and circulars from manufacturers and jobbers in these lines. He intends to open the new store April 1, 1919. He is well and favorably known in the territory tributary to Kingston, having dealt in general merchandise at that town for a number of years. His prospects are bright for a large volume of business and he possesses the necessary experience and ambition to build up a thriving trade in hardware, agricultural implements, and automobile accessories.

SELF-RELIANCE LEADS TO SUCCESS.

Power is the goal of every worthy ambition and only weakness comes from imitation or dependence on others. Power is self-developed, self-generated. We cannot increase the strength of our muscles by sitting in a gymnasium and letting another exercise for us.

Nothing else so destroys the power to stand alone as the habit of leaning upon others. If you lean you never will be strong or original. Stand alone or bury your ambition to be somebody in the world.

The man who tries to give his children a start in the world so that they will not have so hard a time as he had is unknowingly bringing disaster upon them. What he calls giving them a start probably will give them a setback in the world. Young people need all the motive power they can get. They are naturally leaners, imitators, copiers, and it is easy for them to develop into echoes or imitations. They will not walk alone while you furnish crutches; they will lean upon you just as long as you will let them.

One of the greatest delusions that a human being could ever have is that he is permanently benefited by continued assistance from others.

OPPORTUNITIES FOR FOREIGN TRADE PRESENTED BY BUREAU OF FOREIGN AND DOMESTIC COMMERCE.

The Bureau of Foreign and Domestic Commerce through its Special Agents, Consular Officers and Commercial Attachés is receiving information of opportunities to sell hardware and kindred lines in several foreign countries. Names and locations will be supplied on request to the Bureau in Washington or

its District Offices. Such requests should be made on separate sheets for each opportunity, stating the number as given herewith:

28036.—A man in Italy desires to purchase or secure an agency for the sale of motorcycles, accessories, etc. Cash will be paid. Correspondence should be in Italian or French.

28069.—A man in Italy desires to be placed in touch with manufacturers and exporters of American goods with a view to securing agencies for the sale of same. Correspondence should be in Italian. References.

28072.—A man in Italy desires to purchase or secure an agency for the sale of machines for corrugating sheet iron, for bending iron, hydraulic riveting machines, compressed-air riveting machines, heavy drill metal punching and cutting machines, metal-boring machinery, sheet-metal planing machines, lathes for tubing, diameter-testing machines for tubing, metal-milling machines, metal-cutting saws, and carborundum wheels. Correspondence should be in Italian or French. Catalogues are requested. Reference.

28086.—An importer in Belgian Congo desires to secure an agency for the sale in Belgium, Great Britain and Italy of hardware, building materials, etc. Correspondence may be in English. References.

28088.—An agency is desired by a man in Algeria for the sale of American goods of all kinds. Reference.

28089.—A man in Italy desires to secure an agency for the sale of bicycle parts and accessories. Correspondence may be in English. Reference.

28090.—A man in France desires to be placed in communication with exporters of general merchandise. Correspondence may be in English. Reference.

28094.—An agent in France desires to be placed in communication with manufacturers and exporters for the sale of steel of all kinds, tool machinery and tools. Correspondence should be in French. Reference.

28099.—A man in France desires to secure an agency for the sale of agricultural machines and implements. Correspondence should be in French. Reference.

28114.—A man in Norway desires to secure an agency for the sale of automobiles and supplies, bicycles and equipments, machines, tools, builders' and cabinet hardware, cutlery, marine motors and accessories, sporting goods and lubricating oils. Quotations should be made f. o. b. Cash will be paid. Correspondence may be in English. Reference.

28117.—A man in France desires to secure an agency with a stock of goods for the sale of steel, iron and all metallic products. Correspondence should be in French. Reference.

28122.—A man in Norway desires to purchase and secure an agency for the sale of handles for axes, farming tools, hardware, etc. Quotations should be given f. o. b. New York. Terms, net, cash against documents. Correspondence may be in English. Reference.

28127.—A man in France desires to secure a general agency for the sale of motor cars, bicycles, tool supplies, etc. Correspondence may be in English. References.

28130.—A company in Sweden desires to secure an agency for the sale of automobiles and all supplies and accessories. Correspondence may be in English. References.

COMING CONVENTIONS.

Indiana Retail Hardware Association, Indianapolis, Indiana, January 28, 29, 30, and 31, 1919. G. F. Sheedy, Secretary, Argos, Indiana.

Nebraska Retail Hardware Association, Omaha, February 3, 4, 5 and 6, 1919. Nathan Roberts, Secretary, Lincoln, Nebraska.

Connecticut Hardware Association, Hotel Taft, New Haven, February 4 and 5, 1919. Henry S. Hitchcock, Secretary, Woodbury, Connecticut.

Wisconsin Retail Hardware Association, Milwaukee, February 5, 6, 7, 1919. P. J. Jacobs, Secretary, Stevens Point, Wisconsin.

Pennsylvania and Atlantic Seaboard Hardware Association, Pittsburgh, Pennsylvania, February 11, 12, 13, and 14, 1919. Sharon E. Jones, Secretary, Fulton Building, Pittsburgh, Pennsylvania.

Iowa Retail Hardware Association, Coliseum, Des Moines, February 12, 13, 1919. A. R. Sale, Secretary, Mason City, Iowa.

Michigan Retail Hardware Association, Kalamazoo, February 11, 12, 13, 14, 1919. Arthur J. Scott, Secretary, Marine City, Michigan.

North Dakota Retail Hardware Association, Fargo, February 12, 13, 14, 1919. C. N. Barnes, Secretary, Grand Forks, North Dakota.

Illinois Retail Hardware Association, Chicago, Hotel Sherman, February 17, 18, 19 and 20, 1919. Leon D. Nish, Secretary, Elgin, Illinois.

Ohio Hardware Association, Columbus, Ohio, February 18, 19, 20 and 21, 1919. Columbus, Ohio. James B. Carson, Secretary, Dayton, Ohio.

Minnesota Retail Hardware Association, St. Paul, Feb-

ruary 18, 19, 20, 21, 1919. H. O. Roberts, Secretary, Metropolitan Life Building, Minneapolis, Minnesota.

South Dakota Retail Hardware Association, Coliseum Building, Sioux Falls, February 25, 26, and 27, 1919. F. J. Shephard, Secretary, Mitchell, South Dakota.

New York State Retail Hardware Association, Buffalo, New York, February 25, 26, 27 and 28, 1919, Hotel LaFayette. John B. Foley, Secretary, 607 City Bank Building, Syracuse, New York.

Kentucky Hardware and Implement Dealers' Association, Tyler Hotel, Louisville, February 25, 26, 27, and 28, 1919. J. M. Stone, Secretary, Sturgis, Kentucky.

Michigan Sheet Metal Contractors' Association, Kalamazoo, March 5, 6, 7, 1919. Park-American Hotel. F. E. Ederle, 1121 Franklin Street, S. E., Grand Rapids, Michigan.

RETAIL HARDWARE DOINGS.

Arkansas.

The Calico Rock Hardware Company, Calico Rock, has been incorporated for \$7,500 by W. J. Capps, J. T. Garner and H. B. Spadden.

Illinois.

G. D. Boone has sold his hardware store at Sidney to Bruhn and Dracht.

Indiana.

Vern Frantz has sold his hardware business at Claypool to Dave Pilderer.

Lawrence Watson has purchased a hardware store at Ossian.

Iowa.

The hardware store of Staples and Olson at Ellsworth was destroyed by fire.

Kansas.

W. A. Cray and Company have purchased the Parnitzke hardware and implement stock at Canton.

The successor to the C. N. Emery Hardware Company at Paola is the Paola Hardware Company.

Minnesota.

The Camden Hardware and Furniture Company, 4166 Washington Avenue, North, Minneapolis, has sold its stock to Edward Hildebrand.

Missouri.

Gaither and Stubbs, Hayti, are putting in a hardware stock.

H. G. Edwards has purchased an interest in the hardware, furniture and implement business of Thomas and Skinner at Bevier. Mr. Edwards purchased the interest of Albert Skinner.

The Curtright and Cunningham hardware and implement store at Holliday has been sold to Harry Hill.

Nebraska.

Long and Stockham have sold their hardware store at Arnold to Downing and Downing.

L. Spelts has bought the J. E. Kreidler hardware store at Fullerton.

Oklahoma.

W. W. Morris has bought the stock of the Capron Hardware Company at Capron.

The Warren-Smith Hardware Company, Maud, has been incorporated for \$20,000 by K. H. Warren, H. A. P. Smith, of Shawnee, and H. L. Hendrix.

A. J. Whitfield has purchased the interest of Ernest Hankins in the Valliant Hardware and Furnishing Company at Valliant.

C. W. and Carmi Alfred have bought the hardware, implement and furniture business of J. W. Crawford and H. L. Wine at Boynton.

John and Ernest Hankins have bought the business of the Broken Bow Hardware Company at Broken Bow.

South Dakota.

The Heywood Hardware Company, Brookings, has been incorporated for \$15,000 by W. T. Heywood, G. I. Heywood and E. H. Carlisle.

George S. Secrest has bought an interest in the Smith Hardware and Harness store at Sioux Falls.

W. J. Crane has sold his hardware store at Wetonka to R. H. Hill.

Texas.

The Knowlan Machine and Supply Company at Victoria is moving its stock of hardware from the Wood Building to the store room in the Welder Building.

The Palestine Hardware Company, Palestine, will occupy the Knights of Pythias building.

The hardware stock of the Myers Hardware Company, at Bryan, has been moved to the Kaczer and Company building.

J. S. Stockard has sold his hardware stock at Cisco to W. J. Wende and Mrs. Kate Richardson.

The Bailey Hardware Company, Bonham, has increased its capital stock from \$25,000 to \$35,000.

Wisconsin.

F. W. Winn has sold his hardware stock at Glenbuelah to William Mueller.

AUTOMOBILE ACCESSORIES SOLD BY HARDWARE DEALERS

TELLS OF NEW BUSINESS FOR DEALER IN AUTOMOBILE ACCESSORIES.

Particularly in the Middle West, the farmers are buying automobiles and trucks. Rural trucking is due for a great impetus if signs count for anything. Just as the farmer discarded his horse and buggy, so he is viewing motor trucks with longing eye and he is taking an active interest in better roads for obvious reasons. The farmer appreciates the convenience of making a hurried trip to town in his light touring car. He has made a mental calculation that by comparison a truck is equally superior to a horse drawn heavy vehicle. The truck is on the way to general adoption and it will be a big factor in speeding up a better roads movement, not excelled by the influence of the pleasure car. These facts and the outlook which they connote ought to be studied by the dealer in automobile accessories. The hardwareman who numbers farmers among his customers should prepare to take advantage of the need for truck accessories and thus strengthen and widen the service which he gives his patrons.

PATENTS AUTOMOBILE HEATER.

Leo. V. Standish, Gardiner, Maine, assignor of one half to Will C. Atkins, Gardiner, Maine, has secured United States patent rights, under number 1,287,495, for an automobile heater, described herewith:



A device for heating automobiles, including in combination with the motor compartment, a flue in continuation of said motor compartment, said flue terminating in the interior of the automobile, said flue being provided with a damper opening in communication with the atmosphere, a damper for closing either said opening or said flue from communication with the motor compartment, the hood of said motor compartment being provided with louvers, a member movable with respect to said louvers to cover and uncover the same, and means in association with said movable element and with said damper to be engaged by said movable element to raise said damper to discharge heat from the motor compartment into the atmosphere.

IT IS EASY TO TAKE CARE OF BATTERY.

The care of the storage battery may be stated briefly as requiring two things, namely, it must be kept charged and the cells must be kept to the proper level with distilled water. These simple operations must be carried out systematically and at regular intervals.

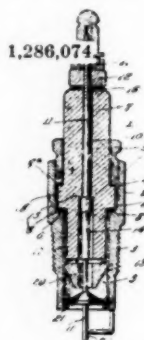
The average car owner probably does not realize that his storage battery works all the time. When the current is being used the electro-chemical action is intensified, but even when the battery is not being used the action is still going on.

This is why regular attention is so vitally necessary. Even if your battery has been lying idle for a month the chemical action has been going on inside and the care needed must be given or trouble follows.

As the electric current is generated by action between the filling in the plates and the liquid solution, or electrolyte, a certain amount of heat also is created. This tends to hasten evaporation of the fluid. As the liquid level drops and part of the plates are exposed to the air the heating is accelerated and soon the grids are warped, the separators fall out, the lead composition crumbles, short circuits take place, and soon the battery is entirely ruined.

SECURES SPARK PLUG PATENT.

Joseph S. O'Gara, Lancaster, Ohio, has obtained United States patent rights, under number 1,286,074, for a spark plug described herewith:



A spark plug comprising an outer metallic shell having a vertically extending opening formed therein, said opening being of substantially the same diameter throughout its lower portion, an angular shoulder forming a part of the wall of said opening, an insulating core positioned within said opening and arranged for seating engagement with said shoulder, a metallic guard member situated to incase and protect the lower end of said core, said member comprising a tubular body disposed to surround said core, a flange formed on the upper end of said body and arranged to seat upon said shoulder, an apertured frusto-conical head formed upon the lower ends of said body, said head being disposed beneath said core and arranged in the lower portion of said shell opening, an electrode carried by said core and having its lower extremity extended to pass through and beyond the apertured head of said body, and a substantially conical shield element carried by the extended end of said electrode and situated adjacent to the head of said guard member and having the rim thereof located contiguous to the annular wall of the lower end of said shell opening.

Check up wheel alignment. Front wheels should toe in about $\frac{3}{8}$ inch; axles should be square with the frame or equi-distant from the spring eyes.

Suit the speed to the road. Going fast over a bad road is not only hard on tires but on the whole car, motor, chassis, body and occupants.

ADVERTISING CRITICISM AND COMMENT

Helpful Hints for the Advertisement Writer

From the point of view of composition, there is not much to find fault with in this advertisement of R. B. Scott. It was published in the *Kinston Free Press*, Kinston, North Carolina. The letter "d" was dropped from the word 'kind' at the end of the fourth line, but

the accident does not seriously impair the value of the line. The generous use of white space deserves approval. Any one who takes the trouble to study the mechanics of vision will find out that it is easier to read an advertisement which has plenty of white space. Furthermore, he will discover that one's attention is attracted and held with greater facility by the agreeable contrast of such an arrangement. This much being said in favor of the advertisement in question, it becomes necessary to point out certain weaknesses in the kind of

thing needed for hunting trips. And it speaks to the prospective buyers, not at them. Its assurance of courteous service enhances the persuasiveness of the advertisement. This kind of publicity, when followed

**Headquarters for
Sheet Metal
Work
of all kin**

**Slate and Tin
Roofing**

Plumbing

**Roof and House
Paint**

**a complete line
or both.**

R. B. SCOTT

"We Also Do Plumbing"

PHONES:

Residence 392-L ' ' Office 697

copy used to fill the area which it occupied. This advertisement is merely a magnified business card. It does not talk to anyone in particular. It does not solicit orders, nor does it present any special commodity or service to induce customers to visit R. B. Scott's shop or telephone him for an estimate on sheet metal work, roofing, or plumbing.

* * *

An excellent example of an advertisement which is editorial rather than descriptive is herewith reproduced from the *Star and Daily Hot Blast* of Anniston, Alabama. No particular commodity is mentioned. But the Anniston Hardware Company talks to a class of customers whose trade is worth cultivating. It tells the men and boys who hunt that it has every-

You Men and Boys Who Hunt

If you are not already a customer of this big hardware store we want you to get in the habit of getting the things you need from us. We have a regular arsenal here that contains everything you need or want on your hunting trips. You will be pleased with the courteous service you receive, too. May we not have the pleasure of serving you?

Anniston Hardware Co.

1120 Noble St.

Phone 1

by specific advertisements of supplies in which prices are honestly set forth, is a powerful factor in institutionalizing a store.

* * *

DON'T RUN AWAY FROM DIFFICULTIES.

"Let no young man seek a soft snap," says Robert Dollar, the great Canadian ship-owner. "Glass cases develop frail plants. Avoid the easy, lazy job. Shun the position that calls for little or no exertion, that does not keep you constantly on tiptoe in an effort to fill it well—better, in fact, than it was ever filled before. Don't run away from difficulties, from hard work, from hard knocks if need be. Hammering hardens and strengthens a young man. It tests his mettle. It develops him. It teaches him self-reliance, self-confidence, grit. It drums out cowardice or timidity, and makes him unafraid to stand up and fight until he learns how to win out."

* * *

WE MUST PAY FOR VICTORY.

We are enjoying the blessings of victory and peace. Think of what, had we been defeated, we would be willing now to give for victory, and make your subscription to the Fifth Liberty Loan accordingly.

HEATING AND VENTILATING

REMOVES COAL PRICE RESTRICTIONS.

Governmental restrictions on the prices of coke and all coal, except Pennsylvania anthracite, and the zone regulations covering the movement of these fuels by rail will be suspended February 1, 1919, it is announced by the United States Fuel Administration. Restoration of both zone and price regulations will be immediately liable, should changing price, wage, labor, production or other conditions command it, the announcement said.

The accumulation of stocks of bituminous coal sufficient to guarantee consumers a full winter's supply is one of the basic reasons for the suspension of the regulations.

On January 1 the average stocks of bituminous coal for the country were approximately sufficient for seven weeks' consumption and in the regions farthest from the mines 20 weeks' supply was on hand.

Maximum prices at the mine for bituminous coal were fixed by presidential order of August 21, 1917, with a range of from \$1.90 to \$3.25 per ton in various districts. Unprecedented demand early in that year had sent the market up to \$5, \$6 and even \$7.50 per ton, to the extreme demoralization of business. Adjustments subsequently were made, the prices at present ranging from \$2.35 to \$4.95 per ton.

Zone regulations were announced in March, 1918, dividing the country into 14 districts, and are credited with having saved the railroad 160,000,000 car miles by eliminating cross hauls and allotting consumers to the nearest mines. The relation of this saving to the enormously increased production of coal in the United States is obvious when it is understood that storage of coal at the mine is not possible, that is, that cars must move continually from the mine if production is to be maintained.

Under the spur of war demand production of bituminous coal in the United States in 1917 increased some 50,000,000 net tons over 1916, and there was a 12,000,000-ton increase in anthracite production. The railroads were required in 1917 to handle more than 60,000,00 tons of coal in excess of their 1916 load.

The Fuel Administration called special attention to the fact that the prices established under the provisions of the Lever Act have been maximum prices, based on the cost of production rather than on quality of coal, and that in the return to normal a different relation between prices in the several fields, based as in normal times on the quality of coal, may fairly be expected to obtain.

The Fuel Administration also stated that in the light of the so-called "Washington Wage Agreement," of October, 1917, whereby it was agreed to continue the wage scale then agreed upon during the war, but not

beyond April 1, 1920, the wages of mine workers should not now be reduced, and it is expected that whatever prices are asked or secured for bituminous coal between now and the promulgation of peace will be based upon the present wage scale.

Attention is also called to the fact that the maximum prices and zone regulations on Pennsylvania anthracite coal, which is largely domestic, are not affected by the above announcement.

TELLS HOW DRAFT IS MEASURED.

Writing in *The Industrial Engineer*, a British publication, James Claughton says that the function of a chimney is, in addition to carrying away waste gases, to produce draft. Draft is necessary in order to ensure proper combustion of fuel. Natural or chimney draft is caused by the difference in weight between the hot gases in the chimney and the temperature of the air outside, thus due to the hot gases being lighter than the cold, a displacement takes place producing a phenomena which we term draft. The amount of draft is measured in inches of water, and for ordinary purposes a draft of about 1 inch of water at the base of the chimney will be found suitable for average British coal, and 1¼ inch to 1½ inch for slack or duff. At this stage I must point out that the draft in inches of water would be much less than those stated above, say about one-half actually, if measured in the flue, or even in the damper chamber itself. This difference in pressure is due to the difference of area between the chimney and the flues, thus causing a difference of velocity of the traveling gases, which in turn causes expansion and contraction to take place.

RESTRICTIONS ON EGG AND PEA COAL SHIPMENTS ARE RAISED.

On account of an increased supply and accumulation, all restrictions as to shipment of anthracite coal of "egg" and "pea" sizes have been removed, it was announced today by the United States Fuel Administration. Notices to this effect have been mailed by the Fuel Administration to all anthracite shippers and distributors.

All shipments of egg and pea coal to territories formerly embargoed or states formerly zoned out to anthracite coal are now without restrictions, and it will be permissible to ship egg and pea coal to such markets as may be found for it. This permission applies only to egg and pea coal, and the restrictions on other sizes continue. Additional permits for egg and pea coal to Canada will be furnished on application.

As the result of the action here related the situation is that egg and pea coal, steam coal, buckwheat No. 1, and smaller sizes can be shipped to any points

where they may be marketed. The restrictions on anthracite shipments now apply only to the sizes known as "stove" and "chestnut."

Allotment is not now required for the shipment of egg and pea coal to Canada, and no restrictions now exist regarding shipment of these sizes to Canada except that the usual permits must be obtained in advance.

SUBSCRIBER SUGGESTS SOLUTION FOR DEFECTIVE DRAFT.

A problem which is more perplexing than the common run of such difficulties was presented on page 29 of last week's issue of **AMERICAN ARTISAN AND HARDWARE RECORD**. It involved trouble with the draft of a chimney in the center of an office building. As stated by J. A. Dart and Sons of Port Huron, Michigan, the flue of the chimney is 21x21 inches square, rising 20 feet above the roof. There are no high structures within 200 feet of the chimney in any direction.

The smoke pipe leading from the boiler is 14 inches in diameter. An extension 8 feet high and 16 inches in diameter has been made on top the chimney, but still the gases seem to cool and hold the smoke down. The following solution of the problem is suggested by one of our subscribers:

TO **AMERICAN ARTISAN AND HARDWARE RECORD**:

In answer to the query of J. A. Dart and Sons of Port Huron, Michigan, in the January 18, 1919, issue of your paper concerning the poor draft in office building chimney. I would say that if they had given the height of the chimney from basement floor

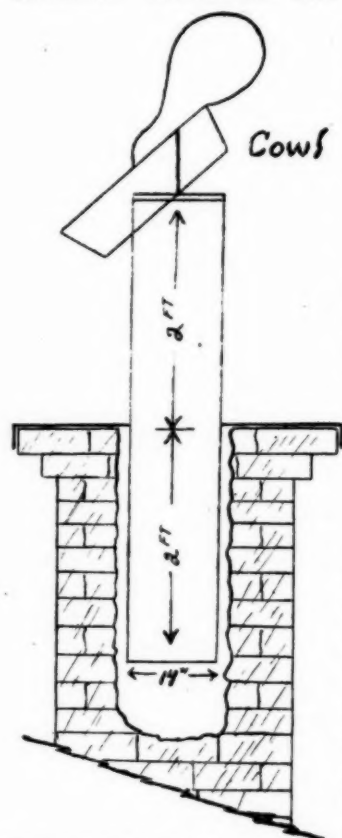


Diagram of Solution for Defective Draft.

and size of the boiler, the difficulty could be more easily explained. However, I trust that the following suggestions will help them:

The chimney has an area of 441 square inches and the smoke pipe from the boiler 156 square inches, the latter not being sufficient to heat the 295 square inches of area which is the difference between the flue area and the smoke pipe area—thereby causing a down pressure.

I would suggest that they take off the smoke jack and drop a 14-inch pipe into the top of the chimney according to the accompanying sketch. This will prevent cold air currents going down the corners of the flue.

The flue should be cut off below the boiler smoke pipe with a sheet iron slide slipped into mortar joints.

This will cut off any cold air currents at the bottom of the chimney.

Trusting that this will eliminate the trouble, I am
Very truly yours,

F. G. DEETS.

Aurora, Illinois, January 20, 1919.

OFFERS ANOTHER SOLUTION OF DRAFT TROUBLE IN CHIMNEY.

TO **AMERICAN ARTISAN AND HARDWARE RECORD**:

On page 29 of your January 18, 1919, issue, J. A. Dart and Sons of Port Huron, Michigan, complain of trouble with the draft of a chimney. This chimney is 21x21 inches and runs twenty feet above the roof. On top of this has been placed an extension 16 inches in diameter and 8 feet high.

The trouble is that the 14-inch smoke pipe, with an area of 153 inches, is not able to move all the heavy air in a flue 21x21 inches, equaling 440 inches.

One remedy would be to extend the 16-inch pipe that is now at the top of the chimney to the bottom and connect it to the 14-inch smoke pipe. Either galvanized iron or tile pipe could be used.

Yours truly,

CHARLES SMITH,

Manufacturer Warm Air Heaters.

Chicago, Illinois, January 23, 1919.

CARE OF GRATES IS IMPORTANT.

In the second and revised edition of "Fuel Facts" just published by the United States Fuel Administration special emphasis is placed upon the proper care of grates, as follows:

Grates require intelligent attention to keep them in good condition. Damaged grates in warm air heaters and ranges are coal and heat wasters. With proper care, grates will last almost as long as the heater or range. If abused they will burn out or warp. Then it is necessary to purchase new ones. Following are suggestions on the care of grates:

1. Grate should be left in flat position. This means that no part of them should protrude into the fire bed, except when shaking.
2. To sift the ashes through the grates, use a short, quick stroke of the shaker. If grates become stuck in this operation, do not use force to free them. In such cases it is likely that they have become clogged with a stone or clinker.
3. It is most important to keep the ash-pit clean. Ashes beneath the grates cut off the air supply. In this condition the grates will soon become warped or burned out.
4. A bed of ashes should be kept on top of the grates, reducing it in size as the weather grows colder. This practice will also help avoid burning out the grates, and will save fuel.
5. Grates should never be shaken until live coals fall through. In severe weather the grates should be shaken only until a glow appears in the ash-pit. In mild weather there should be no glow in the ash-pit.

PRACTICAL HELPS FOR THE TINSMITH

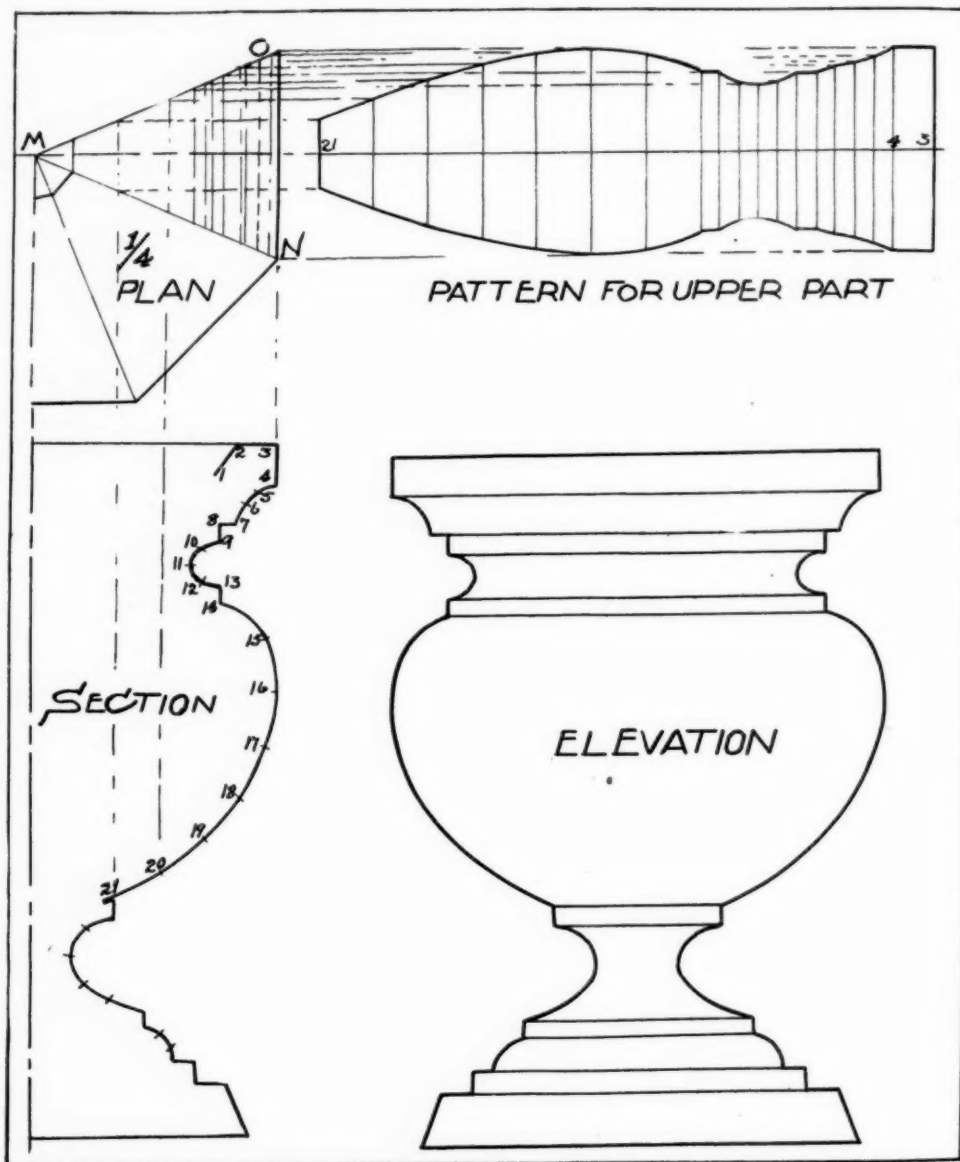
PATTERNS FOR LAWN VASE.

By O. W. KOTHE

The sheet metal men have ample opportunity to display their working ability in making little flower vases or larger lawn vases. This drawing may be devoted to either flower vase or lawn vase. They may be made in gore pieces or in circular work by hammering out the members. Still better if the workmen could get hold of a lathe and spin the body of elevation which would make a much better job and effect. But to lay out this fitting by the gore method we first draw the section working from the center line and divide each curved line into equal spaces. In this way we number each point and bend as from 1 to 21. A quarter plan is next drawn in the shape of an octagon letting M-N-O be one gore. Now by erecting lines from each point in section to intersect these miter lines M-N and M-O we establish the length of lines in the gores. For the pattern, pick the girth from the section taking care to pick each space separately and stepping it off on a line as 3-21. Then by drawing stretchout lines through these points and from each point in miter line M-O and M-N project lines over into stretchout thus cutting those of similar number. Join all points where lines cross and the pattern for the upper part of elevation is finished. Great care must be taken in drawing these lines so as not to get them mixed up and cause the wrong lines to intersect. This would throw the pattern off so that it could not be used.

If it was the desire to lay this vase off the article having 12 or more sides, then the procedure would be the same only changing the miter lines in the quarter plan to suit that number of pieces required. This will make smaller gore patterns and make more work

in assembling but leaves a better effect on certain designs. Laps should be allowed on all straight members while the curved members are butted and soldered and afterwards stripped on the inside. The base or stand would be laid out the same as above pattern.



Pattern for Lawn Vase.

ANNOUNCES DATE OF CONVENTION.

After careful consideration of the matter from every angle, the Convention Committee of the Master Sheet Metal Contractors' Association of Wisconsin has decided to make the necessary preparations and arrangements for the holding of the annual convention of that organization March 20, 1919, with headquarters at the Hotel Wisconsin, Milwaukee, Wisconsin. The opinion current in the sheet metal industry is to the effect that this convention is of extraordinary importance to every sheet metal contractor in Wis-

consin. It is recognized that the prosperity of the trade depends in a large measure upon the policies to be formulated at that gathering and upon the success or failure of the effort to achieve concerted action upon all matters affecting the members of the Association.

VIGOROUS MEMBERSHIP CAMPAIGN IS KEPT UP BY WISCONSIN SHEET METAL CONTRACTORS.

The sort of tenacity of purpose which never slackens effort until desired results are achieved is what qualifies the membership campaign of the Master Sheet Metal Contractors' Association of Wisconsin. Under date of January 22, 1919, the energetic secretary of that organization, Paul L. Biersach, issued a follow-up membership campaign letter which reads as follows:

"Our letters of September 30 and November 11, 1918, have surely been delivered to you by Uncle Sam but we are still of the opinion that up to a very short time ago, you have been unable to go into this matter and situation as carefully as you would have liked to; consequently you deferred taking action on our proposition.

"We assume by our again calling your attention to these communications, you will be able to canvass the entire conditions and circumstances surrounding trade organizations and therefore we again appeal to you to give this your earnest consideration, with the kind request to you to advise us by return mail what action you expect to take.

"There is now a movement on foot amongst the users of rolled sheets, bars, etc., to get a freight rate basis established on these products f. o. b. Chicago instead of f. o. b. Pittsburgh, the latter being unjust for our locality or section and if we, as an organization, can assist other trade bodies in effecting this change it will mean a saving of approximately \$5.00 per ton in the purchase of these products to you and put you in a position not only to give your customers advantage of this reduction but also to compete successfully with other sections.

"Individually, you or we, cannot effect a better condition nor bring about a revision sought for; collectively we possibly can, and eventually will.

"Don't you believe you should affiliate with and be a member of an organization which can bring results beneficial for your pocket book?

"Why don't you immediately forward your application card properly filled out?

"Watch the trade papers for our State Convention, booked for March 20, 1919."

APPOINTS MEMBERSHIP COMMITTEE.

That organization for the promotion of common interests is the most pressing need of the trade is the firm conviction of W. E. Lamneck of Columbus, Ohio, chairman of the Ohio State Committee of the membership campaign of the National Association of Sheet Metal Contractors of the United States. He is, therefore, leaving no effort untried in an endeavor to build

up the ranks of the Ohio branch of the National Association. He has inaugurated a vigorous movement for new members in his State and has appointed the following contractors to serve with him:

W. J. BIRMINGHAM, Cleveland, Ohio;
JAMES J. DALZELL, Youngstown, Ohio;
F. J. HOERSTING, Dayton, Ohio;
J. T. GRAHAM, Zanesville, Ohio;
J. D. GERKEN, Toledo, Ohio;
JOHN WEIGEL, Cincinnati, Ohio.

All these men are well and favorably known to the trade. They have a reputation for progressiveness. There is reason to expect positive results from their participation in the membership campaign.

TRAVELING SALESMEN AUXILIARY OF MICHIGAN PREPARES FOR SHEET METAL CONVENTION.

Encouraged by the unqualified success of their previous efforts, the officers of Traveling Salesmen Auxiliary to the Michigan Sheet Metal Contractors' Association are making vigorous plans for increasing the membership of their organization so that it may be of still greater service to the trade. The following letter has been sent out to the members:

"We are now approaching the third year of the existence of our salesmen's auxiliary and we can look back with pride at the record of our organization at the previous conventions of the Michigan Sheet Metal Contractors' Association.

"The next convention of the contractors will be held at Kalamazoo, March 5, 6, and 7, 1919, and the association has set aside the evening of March 6th for the auxiliary entertainment. The war has ended so successfully for the Allies and it is now the duty of every true American to boost for any association that will help to readjust business to a true normal basis. The members of the Michigan Sheet Metal Contractors' Association and Traveling Salesmen Auxiliary have had many obstacles to overcome, but we have met them as true men and the coming convention will be a good place to meet our customers and friends and help them to forget the past and think and talk of the future.

"Remember the prizes offered the team of traveling men securing the highest number of members. We should secure one hundred members before the convention. If your captain does not coach his team, bear in mind the individual prize, it is worth your effort.

"At the last convention the Michigan Sheet Metal Contractors' Association voted to do away with the practice of charging one dollar for associate membership of members belonging to the auxiliary. So this year \$5.00 makes you an associate and auxiliary member.

"Look over our treasurer's annual report. We have a small amount left, but it was necessary to levy an extra assessment as we had a larger attendance at the Lanquet than we estimated. This year we are going to figure on no extra assessments and will plan on taking care of any extras we may have.

"We are enclosing application blank for 1919 and are asking you to fill out and return same today. You can enclose check or pay the secretary at convention.

"You belong to the membership committee so if you know of any firm or traveling man that should belong to our association get his five or send secretary his name. Remember you will assist the secretary and committee by filling out and returning blank today."

EDWIN SNYDER, President.
E. E. BEHLER, Secretary.

TIN IMPORTS FROM ENGLAND DECLINE.

About 4,935 long tons of metallic tin were imported into the United States during the month of November, as against 4,443 tons in October and an average of 6,333 tons during the 11 months ending November 30, 1918, according to *Commerce Reports*, the official daily publication of the United States Department of Commerce. This compares with 4,214 tons in November, 1917, and an average monthly importation during the first 11 months of the calendar year 1917 of 5,877 tons. Of the November imports only 143 tons (metallic content) were in the form of ore, which, while it represents an increase over the October ore figures, is nevertheless way below the average for the 11 months of 812 tons (metallic content).

Of the imports of bars, blocks, and pigs, significant changes were a drop in imports from England and an increase in shipments from the Straits Settlements, the Dutch East Indies, Australia, and Hongkong. An unusual circumstance attending the November imports is the wide variation in the average prices of the lots from each country, which are as follows:

	Per pound.
British India.....	\$0.80
England and Australia.....	.77
Straits Settlements.....	.75
All countries.....	.74
Canada and Hongkong.....	.71
Dutch East Indies.....	.65
China.....	.58

As showing the importance of this trade to the United States, it may be noted that November tin imports from the Straits Settlements alone were valued at almost \$6,000,000.

WANTS NAME OF MAKERS.

TO AMERICAN ARTISAN AND HARDWARE RECORD:

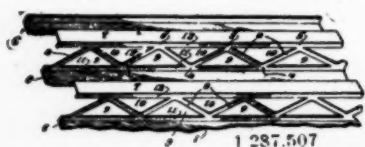
Please tell us who makes pressed galvanized bottoms for tank heaters.

SUBSCRIBER.

—, Wisconsin, January 20, 1919.

REINFORCING PLATE IS PATENTED.

Ernest C. Stroebe, Canton, Ohio, assignor to The Berger Manufacturing Company, Canton, Ohio, has procured United States patent rights, under number 1,287,507, for a reinforcing plate described herewith:



A reinforcing plate formed from sheet metal and comprising a series of elongated chords alternate chords lying in the same plane, an integral flange formed upon either edge of each chord, the said

flanges extending in the direction of the next adjacent chord, ribs formed integral with the said flanges and chords and lying in the same plane as the said flanges the said ribs connecting adjacent chords.

NOTES AND QUERIES.

Corrugated Black Elbows.

From W. A. Covell and Son, 228 West 4th Street, Waterloo, Iowa.

Kindly advise who makes corrugated black elbows.

Ans.—Ferdinand Dieckmann Company, P. O. Station B, Cincinnati, Ohio; Hemp and Company, St. Louis, Missouri; Milwaukee Corrugating Company, Milwaukee, Wisconsin; and Whitaker-Glessner Company, Wheeling, West Virginia, and 2547 Arthington Street, Chicago.

Viko Aluminum Ware.

From the B. H. S. Hardware Store, Dysart, Iowa.

Can you tell us who makes the Viko Aluminum ware?

Ans.—This is manufactured by the Aluminum Sales and Manufacturing Company, 483 Broadway, New York City.

Address of Temple Manufacturing Company.

From R. C. Hartman, Argenta, Illinois.

Please give me the address of the Temple Manufacturing Company.

Ans.—They formerly were located in Chicago but have been out of business for about two years.

Wire Novelties.

From Gohmann Brothers and Kahler Company, New Albany, Indiana.

Will you kindly inform us who makes wire novelties?

Ans.—Bromwell Company, 420 Main Street, Cincinnati, Ohio; American Stamping Manufacturing Company, Pittsburgh, Pennsylvania; M. S. Brooks and Sons, Chester, Connecticut; and Wire Goods Company, Worcester, Massachusetts.

Repairs for Westwick Warm Air Heaters.

From Ostlund Hardware Company, 4607 North Clark Street, Chicago.

We would like to know where we can buy repairs for the Westwick warm air heater.

Ans.—V. A. Smith Company, 213 West Lake Street, Chicago, Illinois, have repairs for this heater.

Cushman Gasolene Engine.

From The Butzloff Hardware Store, Belle Plaine, Iowa.

Could you tell us who makes the Cushman Gasolene Engine?

Ans.—This is manufactured by the Cushman Motor Works of Lincoln, Nebraska.

Playground Equipment.

From the Erie Hardware Company, 1220 State Street, Erie, Pennsylvania.

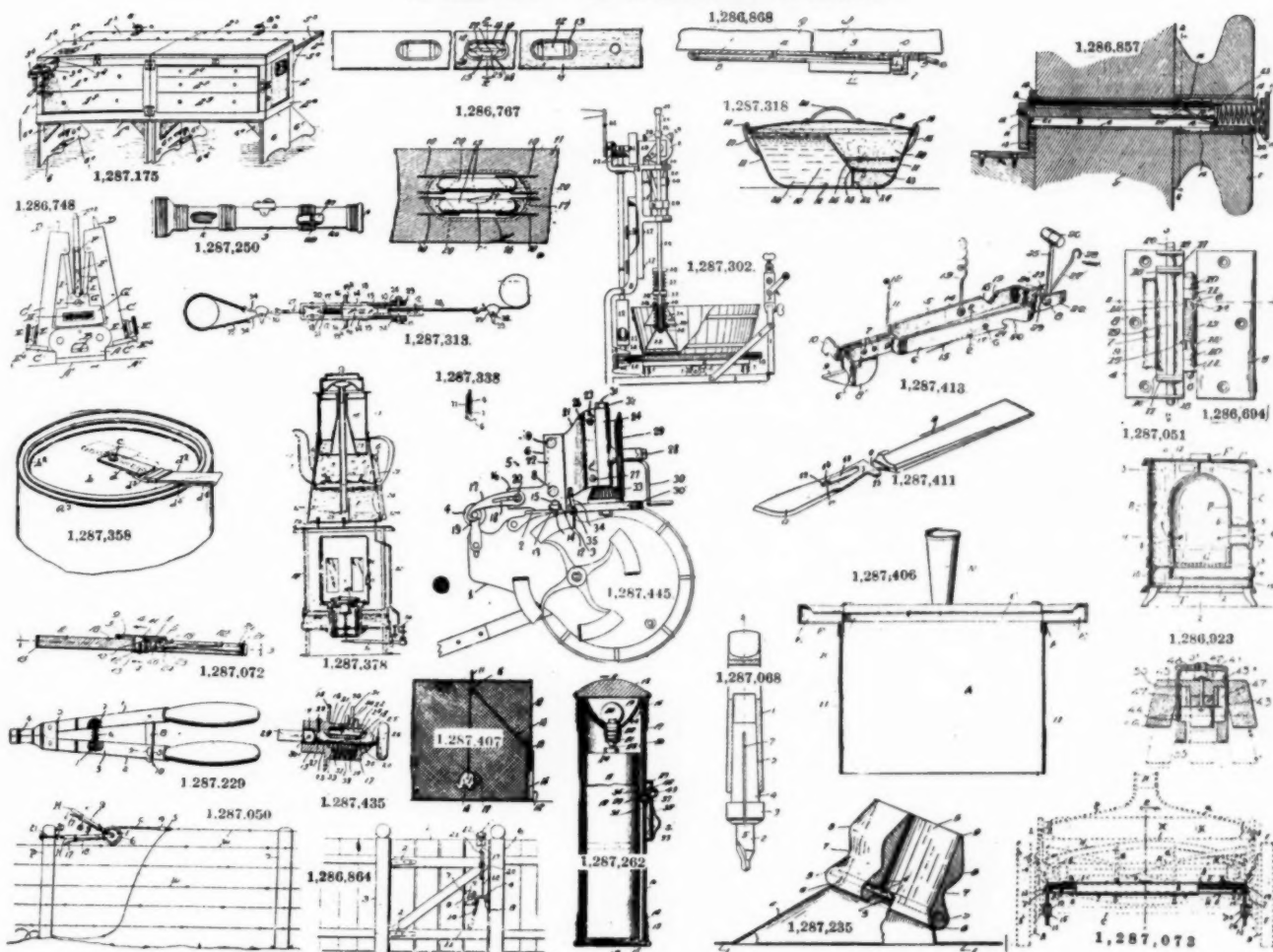
Will you kindly give us the names of some companies making playground equipment?

Ans.—American Playground Device and Swing Company, Terre Haute, Indiana; Fred Medart Manufacturing Company, DeKalb and Potomac Avenues, St. Louis, Missouri; and Safety First Supply Company, Hartje Office Building, Pittsburgh, Pennsylvania.

The Sheet Metal Tools and Machinery Company, 710 South Alvarado Street, Los Angeles, California, has been recently organized.

The capital stock of the Berger Manufacturing Company, Canton, Ohio, was recently increased from \$5,000,000 to \$10,000,000 to provide for future expansion.

NEW PATENTS.



1,286,694. Hinge. John R. MacDonald, Deposit, N. Y. Filed Jan. 7, 1918.

1,286,748. Combination-Tool. Alexander Ozerowicz, Hamtramck, Mich. Filed Feb. 9, 1918.

1,286,767. Level. George C. Powell, Chicago, Ill., assignor, by direct and mesne assignments, to Edwards & Powell Co., Chicago, Ill. Filed Jan. 22, 1917.

1,286,857. Door-Latch. Charles D. Fischer and Sarah Ann Vernon, Folsom, N. Mex. Filed March 5, 1918.

1,286,864. Gate-Latch. John H. Windham, Union, Miss. Filed May 9, 1918.

1,286,868. Combined Lock and Hasp. Charley H. Zanger, Norwood, Ohio. Filed July 16, 1918.

1,286,923. Agitator for Washing-Machines. Alfred Bohy, Albia, Iowa. Original application filed May 8, 1918. Divided and this application filed July 6, 1918.

1,287,050. Wire-Stretcher. Frank Kranz, St. Louis, Mo. Filed Aug. 14, 1918.

1,287,051. Stove. James B. Lakin, Phelps City, Mo. Filed July 13, 1918.

1,287,068. Tool-Holder. Alfred Marti and Alfred Oesch, Erie, Pa. Filed Feb. 25, 1918.

1,287,072. T-Square. Joe Mihalinec, Menlo Park, Cal. Filed March 19, 1918.

1,287,073. Attachment for Lawn-Mowers. William H. Mitchell, Richmond, Ind. Filed Jan. 25, 1918.

1,287,175. Combination Tool-Chest and Work-Bench. Andrew Anderson, Crookston, Minn. Filed Feb. 15, 1918.

1,287,229. Stove-Lid Lifter. George Chromy Stewart, Minn. Filed April 2, 1918.

1,287,235. Roof-lashing. Clifford E. Cole, Birmingham, Ala. Filed Oct. 26, 1916.

1,287,250. Flash-Light. James O'Donnell Dailey, Tillamook, Oreg., assignor of one-half to Charles S. Barnes, Tillamook, Oreg. Filed Jan. 31, 1918.

1,287,262. Portable Electric Light. John T. Drufva, Longmeadow, Mass., assignor to Henry Hyman & Co., Inc., New York, N. Y. Filed April 4, 1918.

1,287,302. Washing-Machine. Hiram Hart, St. Louis, Mo. Filed Dec. 1, 1916.

1,287,313. Wire-Stretcher. Walter W. Hoffland, Bend, Oreg. Filed Jan. 17, 1917.

1,287,318. Milk-Boiler. Steve Kis Horvath, Milwaukee, Wis. Filed March 13, 1918.

1,287,338. Safety-Razor. Frederick Bunnell King, Bridgeport, Conn. Filed March 30, 1917.

1,287,358. Can-Opener. Charles A. Lefevre, Pontiac, Mich. Filed April 13, 1918.

1,287,378. Percolator. Philip Malcamp, New Orleans, La. Filed Oct. 27, 1917.

1,287,406. Dust-Pan. Clarence A. Olsen, Yankton, S. D. Filed Oct. 2, 1917.

1,287,407. Animal-Trap. Edward O'Reilly, Mount Kisco, N. Y. Filed Dec. 13, 1916.

1,287,411. Detachable-Blade Knife. Morgan Parker Newport, R. I. Filed Nov. 27, 1915.

1,287,413. Combination-Tool. Joseph A. Parrella, Washington, D. C. Filed Feb. 20, 1918.

1,287,435. Combination Door-Lock. Mike Rega, Mount Pleasant, Pa. Filed March 11, 1918.

1,287,445. Lawn-Mower Sharpener. Christian F. Rumold, Berea, Ky. Filed Feb. 16, 1918.

WEEKLY REPORT OF TRADE AND THE MARKETS

PRODUCTION IN STEEL INDUSTRY IS STILL SOMEWHAT IRREGULAR.

Steel mill operation this week is computed at the low figure of 65 per cent. Conditions are decidedly mixed. At some plants there is slackening of operation. At other plants some of the departments are closed definitely. Some mills, therefore, are being reported as in regular operation when their tonnage outputs are really considerably below actual capacity. The trend is still in the direction of lighter operations, and that condition may continue for several weeks. The general expectation is for a revival of a proportion of demand by early spring.

The iron and steel market is stagnant, although there is some buying in progress, particularly in finished steel products, the volume is small. Buying includes specifying on old contracts, and the major portion of the current bookings is made up of such shipping orders on old contracts. Buyers as a rule specify rather than make fresh purchases when they desire material.

The last week disclosed a marked change in sentiment in the steel trade in the matter of prices. It is now conceded that if the slow movement toward readjustment is continued along the lines indicated prices will go lower. One barrier in the way of a general reduction is seen in the guaranteed price of wheat, and in the event that is removed a general recession all along the line that may encourage the resumption of business is looked for.

As long as high taxes stay, however, uncertainty will continue regardless of the other factors in the situation.

STEEL.

Offerings of considerable tonnages of shell steel, perhaps 100,000 tons in the aggregate, have been made by the British Government. They are in partly manufactured form, and excellent scrap material, but impossible to roll into usual forms. Such material has been going at \$22 to \$23 delivered at various consuming points.

COPPER.

The copper market continues wholly routine and demand is still for immediate requirements. The great transformation from war to peace is still under way and it will take some more time before the uncertain period will disappear and make room for an improvement in the demand.

Foreign buyers are not willing to contract at the export association's price of 23 cents, as in England large resale lots are overhanging the market and the metal is officially quoted by the London Metal Exchange at the equivalent of 19 cents New York. To unite on an agreeable price basis producers have ap-

pointed a committee, which will sail for Europe and meet foreign consumers.

According to the United States Geological Survey the average monthly output of refined copper in 1918 was 202,000,000 pounds, while the Producers' Committee's report indicates a monthly average of 196,000,000 pounds. The difference is not large and may be harmonized when full reports have been received. There was a difference of about 67,000,000 pounds between the Survey's preliminary and final reports for 1917, the latter showing output of refined from primary sources of 2,428,546,171 pounds. The Producers' Committee, of course, functioned only through stress of war conditions. It is fair to assume that, in round numbers, the output of refined copper last year averaged 200,000,000 pounds a month. In January and February, 1918, when traffic congestion resulted from war conditions and severe winter weather, output of refined copper was about what it is this month—about 152,000,000 pounds. The peak of the refined output was in July, when about 224,000,000 pounds was produced, according to the committee's data.

Exports in December are now indicated to have been the smallest in over ten years. Thus far Government returns show less than 5,000 tons shipped abroad last month. The prospect for further foreign business is not encouraging with probable surplus supplies of 300,000,000 pounds in Allied and neutral countries and revolutions in Russia and in Central Europe still throttling industry.

A form of contract has recently come into vogue by which the consumer who asks for copper is allowed the benefit of any reduction in market price should it occur, say, within the next two months. It is unfortunate that this form of contract is not adopted extensively by other lines of business and applied much more extensively in copper itself, to bridge the present period of uncertainty. If consumers are holding off because they fear prices will go down, prices do go down because they are holding off. Production is curtailed. If consumers are protected from a drop, they will buy. And their buying may prevent the very decline from which they are protected.

TIN.

The situation is more unsatisfactory than at any time, and lower prices abroad seem certain as it is gradually brought home to the foreign market that no orders from America are to be expected in months, for unless the Government assumes the loss on the stocks they have accumulated, the ban on imports will be continued until these stocks are liquidated. There is absolutely no demand for tin at present and prices are nominal and unchanged today.

The Chief of Control of Tin of the War Trade Board has sent out notices to consumers stating that

there has been allocated to them a certain amount of tin, the amount allocated being named to each consumer, and apparently based on the proportion of tin he normally consumes, of which the authorities have a guide from the questionnaires sent out in the past. The idea is that each consumer should take the amount allocated to him at the Government cost price, say 72.50 cents, and thus liquidate the quantity the Government bought for distribution through the United States Steel Products Company. This, if agreed to by the consumers, would clear up the situation, and the loss would be distributed pro rata according to the importance of the consumer in his use of tin. From all appearances, the indications are that while some of the large consumers are believed to be willing to see the Government out in this way, there are a great many others, especially the smaller consumers, who object, and many others who intend to go slow before entering the agreement.

LEAD.

Dullness prevails in the lead market, with buyers holding off, and sellers gradually showing more disposition to make concessions. There are some foreign bids and inquiries reported, but these are away below the prices at which sellers are holding and are thought to be made more with a view to see how low a price can be quoted, than to any real desire to make purchases.

Some of the larger independent producers are refusing to offer any lead, and the output is steadily being reduced. Lead ore is firmly held, as the decreased production has given a stronger tone to the market, and it is said that further shut downs of mines and smelters are contemplated. Producers are insisting that they cannot make lead at a profit at the present prices and they are willing to await developments.

Contractors whose contracts were canceled by the Government and whose claims have not been allowed, are awaiting the outcome, and in the meantime there is practically no business to be had. Prices in Chicago for American pig lead are 5.75 cents and 6.25 cents for bar lead.

SOLDER.

In the Chicago market, solder is quoted as follows: Warranted 50-50, per pound, 52 cents; Commercial, 45-55, per pound, 38.7 cents; Plumbers', per pound, 35-4 cents.

SPELTER.

The weekly government report on the production of spelter and stocks of spelter shows a falling off in production of grades A and B, which was to be expected as a natural consequence of the ending of the war and the reduction in the demand for this class of metal for cartridge cases and other articles of munitions. No statistics were collected prior to 1917 showing the output of spelter according to classes, but it is known that the production of grades A and B is still very much in excess of what it was before the war, and before the Electrolytic process was established in the zinc industry.

The increase in grade D, or common spelter, results partly from the fact that redistilling is being given up, and the metal being marketed is prime Western or brass special, instead of carrying it to a higher degree of purity, and partly from the fact that smelters are working off their ore stocks prior to a revision in operations. As business is at present there is not the demand to take care of 900 to 1,000 tons of common spelter a day, and with a declining market a reduction in the output is almost certain to occur. Last year the production of grade D for some time ran below 4,000 tons a week and the smelters are prepared to do the same thing again rather than to court disaster by overflowing the market with surplus stocks.

There is nothing in the situation to cause alarm, provided a reasonable curtailment of output is carried out, and there is some satisfaction in knowing that the stocks on hand at present are 20,000 tons less than they were at this time a year ago.

SHEETS.

From Pittsburgh comes the report that all makers of open-hearth steel sheets, such as go into automobiles, cannot take on more business for the time being because of scant supply of open-hearth steel bars. Current mill operations are about 80 per cent of capacity. Export buying is fairly active. Domestic buying is somewhat retarded because of uncertainty as to future prices.

TIN PLATE.

Enough orders are said to be coming in to keep the tin plate mills operating on reduced schedules. Fair-sized orders for roofing ternes are reported and quite a number of orders have lately been placed for black tin plate.

OLD METALS.

Wholesale quotations in the Chicago district, which may be considered nominal, are as follows: Old steel axles, \$28.00 to \$30.00; old iron axles, \$28.00 to \$30.00; steel springs, \$20.00 to \$21.00; No. 1 wrought iron, \$21.00 to 22.00; No. 1 cast iron, \$22.00 to \$23.00 all net tons. Prices for non-ferrous metals are as follows, per pound: Light copper, 12½ cents; light brass, 7 cents; lead, 3½ cents; zinc, 3¾ cents; cast aluminum, 17½ cents.

PIG IRON.

The disposition on the part of consumers to hold off is the main factor making for a quiet and unsatisfactory situation in the pig iron markets of the various districts. New business is poor, but producers believe that it might be only a matter of weeks before activity must be renewed, and the longer buying is deferred the greater will be the rush to cover requirements. The general policy of furnaces is at present to quote the \$3 per ton reduction agreed upon when fixed government prices were abandoned, but there are several makers that are not prepared to sell any iron at this price, as they expect much higher iron ultimately.

Current Hardware and Metal Prices.

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS.		LEAD.		AUGERS		BEATERS.	
PIG IRON.		American Pig.....\$5 75 Bar.....6 25		Boring Machine.....60% Irwin's.....25% Carpenter's Nut.....50%		Carpet. Per doz. No. 7 Tinned Spring Wire... \$1 10 No. 8 Spring Wire coppered... 1 50 No. 9 Preston..... 1 75	
Basic.....\$34 40 Northern Fdy., No. 2... 34 00 Southern Fdy No. 2... 40 25 Lake Sup. Charcoal... 38 70-39 00 Malleable..... 34 50		Full coils.....per 100 lbs. \$10 00 Cut coils.....per 100 lbs. 10 25		Hollow. Bonney's.....per doz. 30 00 Stearns, No. 3..... 60 00		Egg. Per doz. No. 50 Imp. Dover.....\$ 1 10 No. 102 " " tinned... 1 35 No. 150 " " hotel... 2 10 No. 10 Heavy hotel tinned... 2 10 No. 13 " " " 3 30 No. 15 " " " 3 60 No. 18 " " " 4 50	
FIRST QUALITY BRIGHT TIN PLATES.		TIN.		Post Hole.		Hand.	
IC 14x20.....112 sheets \$14 10 IX 14x20..... 15 75 IXX 14x20..... 17 55 IXXX 14x20..... 18 80 IC 14x20..... 20 10 IX 20x28..... 28 20 IX 20x28..... 31 50 IXX 20x28..... 35 10 IXXX 20x28..... 37 60 IXXX 20x28..... 40 20		Pig tin.....76¢ Bar tin.....Nominal		Iwan's Post Hole and Well... 25% Vaughan's, 4 to 9-in...per doz.\$13 00		Per doz. \$11 50 13 00 14 75 18 00	
COKE PLATES.		HARDWARE.		Ship.		Moulders'.	
Cokes, 180 lbs..... 20x28 \$17 70 Cokes, 200 lbs..... 20x28 18 00 Cokes, 214 lbs.....IC 20x28 18 60 Cokes, 270 lbs.....IX 20x28 21 00		ADZES. Carpenters'. Plumbs.....Net Coopers'. Barton's.....Net White's.....Net Railroad. Plumbs.....Net		Ford's, with or without screw, Net list		12-inch.....Per doz. 20 00	
BLUE ANNEALED SHEETS.		AMMUNITION.		Brad.		BELLS.	
No. 10.....per 100 lbs. \$5 17 No. 12.....per 100 lbs. 5 22 No. 14.....per 100 lbs. 5 27 No. 16.....per 100 lbs. 5 37		Caps, Percussion—per 1,000. F. L., Waterproof, 1-10s... 20&21% G. D. 20&21% Musket..... 20&21% Shells, Loaded. Loaded with Black Powder. 20&21% Loaded with Smokeless Powder. medium grades. 20&21% Loaded with Smokeless Powder. high grade. 20&21% Winchester. Smokeless Repeater Grade. 20&21% Smokeless Leader Grade... 20&21% Black Powder..... 20&21%		No. 3 Handled.....per doz. \$0 65 No. 1050 Handled..... 1 40 Shouldered, assorted 1 to 4, Patent asst'd, 1 to 4. 4 00 85		3-inch Nickeled Rotary Bell, Bronzed base.....per doz. \$5 50	
ONE PASS COLD ROLLED BLACK.		U. M. C. Nitro Club..... 20&21% Arrow..... 20&21% New Club..... 20&21%		Harness. Common..... 1 05 Patent..... 1 00		Call. 3-inch Nickeled Rotary Bell, Bronzed base.....per doz. \$5 50	
No. 18-20.....per 100 lbs. \$6 02 No. 22-24.....per 100 lbs. 6 07 No. 26.....per 100 lbs. 6 12 No. 27.....per 100 lbs. 6 17 No. 28.....per 100 lbs. 6 22		Gun Wads—per 1000. Winchester 7-8 gauge.....\$2 25 " 9-10 gauge..... 1 94 " 11-28 gauge..... 1 63		Peg. Shouldered..... 1 60 Patented..... 75		Cow. Kentucky.....30%	
GALVANIZED.		Powder. DuPont's Sporting, kegs.\$11 25 " " 4 kegs. 5 90 " " 4 kegs. 3 10 DuPont's Canisters, 1-lb. 56 " " 4-lb. 32 " " 4-lb. 22 " Smokeless, drums. 43 50 " kegs. 22 00 " " 4 kegs. 11 25 " " 4-kegs. 5 75 " " canisters. 1 00		Scratch. No. 18, socket hand'ld, per doz. 2 50 No. 344 Goodell-Pratt, List, less35-40% No. 7 Stanley 2 25		Hand. Hand Bells, polished.....15% White Metal.....15% Nickel Plated.....10% Swiss.....15% Silver Chime.....10%	
No. 16.....per 100 lbs. \$6 82 No. 18-20.....per 100 lbs. 6 97 No. 22-24.....per 100 lbs. 7 12 No. 26.....per 100 lbs. 7 27 No. 27.....per 100 lbs. 7 42 No. 28.....per 100 lbs. 7 57 No. 30.....per 100 lbs. 8 07		L. & R. Orange, Extra Sporting kegs. 11 25 L. & R. Orange, Extra Sporting 4-kegs. 5 90 L. & R. Orange, Extra Sporting 4-kegs. 3 10 L. & R. Orange, Extra Sporting 1 lb. canisters. 56 L. & R. Orange, Extra Sporting 4 lb. canisters. 32 L. & R. Orange, Extra Sporting 4-lb. canisters. 22 Hercules "E.C." and "Infallible" 50 can drums. 43 50 Hercules "E. C." kegs. 22 50 Hercules "E. C." 4-kegs. 11 25 Hercules "Infallible," 25 can drums. 22 00 Hercules "Infallible," 10 can drums. 9 00 Hercules "E. C." 4-kegs. 5 75 Hercules "E.C." and "Infallible" canisters. 1 00 Hercules W. A. .30 Cal. Rifle, canisters. 1 25 Hercules Lightning Rifle, canisters. 1 25 Hercules Sharpshooter Rifle, canisters. 1 25 Hercules Unique Rifle, canisters 1 50 Hercules Bullseye Revolver, canisters. 1 00		AXES. Boys' Handled. Niagara..... 12 50		Door. Per doz. New Departure Automatic... \$ 7 50 Rotary. 3-in. Old Copper Bell 6 00 3-in. Old Copper Bell, fancy. 8 00 3-in. Nickeled Steel Bell.... 6 00 3 1/2-in. Nickeled Steel Bell.... 6 50	
POLISHED SHEET STEEL.		Broad. Plumbs, West, Pat.....List " Can. Pat.....\$69 00 " Firemen's (handled),per doz. 21 00		Single Bitted (without handles). Warren Silver Steel... on application Warren Blue Finished. Matchless Red Pole.....\$11 50		Miscellaneous. Church and School, steel alloys...30% Farm, lbs. 40 50 75 100 Each.....\$3 00 3 75 5 50 7 25	
No. 24.....per 100 lbs. \$7 82 No. 26.....per 100 lbs. 7 87 No. 27.....per 100 lbs. 7 92 No. 28.....per 100 lbs. 8 02		BAGS, PAPER NAIL. Pounds..... 10 16 20 25 Per 1,000.....\$5 00 6 50 7 50 9 00		BALANCES, SPRING. Pelouze.....20%		BEVELS, TEE. Stanley's rosewood handle, new list.....Nets Stanley's iron handle.....Nets	
SMOOTH SHEET STEEL.		Double Bitted (without handles). Warren's Natl. Blue, 3 1/2 to 4 1/2 lb. Prices on application The above prices on axes of 3 to 4 lbs. are the base prices.		BINDING CLOTH. Zincd.....55% Brass.....40% Brass, plated.....60%		BITS. Auger. Jennings Pattern.....20% Ford Car.....List plus 5% Ford's Ship..... Irwin.....35% Russell Jennings.....15% Clark's Expansive.....33 1/2% Stearns "Small list, \$22 00.....5% " Large " \$26 00.....5% Irwin Car.....35% Ford's Ship Auger pattern Car.....List plus 5% Center.....10%	
Wood's Smooth No. 20.....\$7 27 " " No. 22-24..... 7 32 " " No. 25-26..... 7 37 " " No. 27..... 7 42 " " No. 28..... 7 52		BASKETS. Small Willow.....per doz. 15 00 Medium Willow..... 17 00 Large Willow..... 20 00		Dowel. Russell Jennings.....15%		Screw Driver. No. 1 Common..... 1 40 No. 26 Stanley..... 1 75	
PATENT PLANISHED SHEET IRON.		ANVILS. Trenton, 70 to 80 lbs.....9¢ per lb. Trenton, 81 to 150 lbs.....9¢ per lb.		Clothes.		Reamer. Standard Square.....Doz. 2 50 American Octagon... " 2 50	
Patent Planished Sheet Iron, 100 lbs., base No. 28.....\$11 55		ASBESTOS. Board and Paper, up to 1/16" 17¢ per lb. Thicker.....18¢ per lb.		Galvanized Steel. 1/2 bu. 1 bu. 1 1/2 bu. Per doz.....\$11 50 \$17 00 \$22 00		Standard Double Cut. Doz. \$1 10—\$1 60 Countersink.....Doz. 1 80	
BAR SOLDER.							
Warranted, 50-50.....per lb. 42 c Commercial, 45-55..... 38.70c Plumbers'..... 35.40c							
SPELTER.							
In slabs.....7 1/2c							
SHEET ZINC.							
Cask lots.....15c Less than cask lots.....15 1/2-16c							
COPPER.							
Copper sheet, base.....29c							

BLACKING, STOVE. (See Polish)			Well.			Picture Chains.			Saw Filers.		
BLADES, SAW.			Oak, Wrought Iron Riveted			Light Brass, 3 ft. per doz. \$1 25			Wentworth's, No. 1, \$12.50; No. 2,		
Butchers'.			Top Ears. per doz. \$8 00			Heavy Brass, 3 ft. " 1 75			\$18.25. No. 3, \$16.25.		
Standard, 1 & 1 1/2-in. Nets			BURRS, RIVETING.								
Clock Spring. "			Copper Burrs only. 25% above list								
Star. "			Tinners' Iron Burrs only. 30%								
Hack.			BUTTS.			Safety Chain.			CLAWS, TACK.		
Atkins. 5%			Cast Iron. 7 1/2%			Brass. 5%			Wood hdl. No. 10. per doz. \$0 95		
Star. Nets			Wrought Brass (New List). Plus 5%						Forged steel, wood hdl. \$1 75		
Wood.			Wrought Steel, Bright. 40%						Solid steel. " 2 40		
Disston			Wrought Steel, Japanned. Net prices						Giant. " 50		
Nos. 6 66 26											
Atkins			CALIPERS.			Sash Chain. (Morton's)			CLEANERS.		
Nos. 2 14 18			Double. Nets			Steel, per 100 ft.			Drain.		
\$3 85 \$6 50 \$4 75			Inside and Outside. "			0. \$2 50			Iwan's Adjustable. 40%		
			Wing. "			2. 3 10			Iwan's Stationary. 30%		
BLOCKS.			CALKS.			1. 3 60			Pot.		
Snatch.			Logger's Boot.						Wire. per doz. \$0 75		
Wooden. Plus 10%			(Lufkin R. Co.'s), per M. \$7 00			Champion Metal.			Side-Walk.		
Tackle.			Toe.			0R. 5 40			Steel. per doz., Net prices		
Iron Strapped. Plus 10%			Blunt and medium, 1 prong,			2R. 5 60					
			per 100 lbs. \$6 00			1R. 7 75					
			Sharp, 1 prong, per 100 lbs. 6 50			Champion Metal.—Extra Heavy.			CLEAVERS.		
BOARDS.			CANS.			1H. 9 50			Family.		
Sieve.			Elgin.			Cable Sash Chains.			Beatty's, inch 7 8 9 10		
Wabash Crystal. Net Prices			Gals. 5 8 10			Steel. List Net Plus 15%			Per doz. \$27 00 29 00 33 00 36 00		
Wabash Oriental. "			Each. \$4 00 \$5 15 \$5 15								
Wabash Mosaic. "			Iowa Pattern.						CLEAVISES.		
Wabash Delft Enameled. "			Gals. 5 8 10						Malleable. 10c lb.		
Wabash Art Inlay. "			Each. \$4 00 \$5 15 \$5 15			Chalk, Carpenters'			CLIPPERS.		
Wash.			CAN OPENERS.			Blue. per gro., \$1 50			Bolt. \$2 25 & 6 00		
No. 760, Banner Globe, (single)			See Openers.			Red. " 1 50			CLIPS.		
No. 652, Banner Globe, (single)			CAPS, GUN.			White. " 1 45			Axle. 65 & 5%		
No. 652, Banner Globe, (single)			See Ammunition.			Common White School			Damper.		
No. 801, Brass King. 6 75			CARPET STRETCHERS.			Crayon. " 25c			Standard. per doz. 70c		
No. 801, Brass King. 8 25			See Stretchers.			CHARCOAL.			Troy. " 38c		
No. 860, Single—Plain Pump 6 25			CARRIERS.			In bags. per bag \$1.70			Home. " 50c		
			Hay.			CHECKS, DOOR.			CLOTH.		
BOBS, PLUMB.			Diamond, Regular. each, Nets			Blount. Net list			Emery.		
Carpenters'.			Diamond, Sling. "			Corbin. "			Star. New Prices		
No. 2, iron. per doz. \$1 15			CARTRIDGES.			CHIMNEY TOPS.			B. & A. "		
No. 00, " 1 90			See Ammunition.			Iwan's Volcano. 40%			Hardware Wire—		
No. 0, " 3 85			CARPET STRETCHERS.			CHISELS.			Full rolls (100 ft.)		
No. 3, lead. 4 35			See Stretchers.			Box.			12 Mesh, galvanized. "		
No. 4, " 6 00			CATCHERS, GRASS.			Inches. 12 14			14 " " " " " "		
No. N30, nickel plat'd. 2 40			No. 160S, per doz. \$12 25			Round, per doz. \$5 25 5 75			16 " " " " " "		
No. 5, brass. 5 25			No. 165S, " 14 01			Flat, per doz. 7 25 8 25			18 " " " " " "		
BOLTS.			CEMENT, FURNACE.			CHUCKS, DRILL.			Screen Wire. Prices on application.		
Carriage, Machine, etc			American Seal, 5 lb. cans, net			Goodell's, for Goodell's Screw			12 mesh, painted, per 100 sq. ft.		
Carriage, 1x6 and sizes smaller.			" " 10 lb. cans, " 90			Drivers. List less 35-40%			COLLARS, STOVE PIPE.		
and shorter. 40%			" " 25 lb. cans, " 1 87			Yankee, for Yankee Screw			Lacquered.		
			Pecora, 5 lb. cans. 45			Drivers. 6 00			Inches 5 6 7		
			" 10 lb. cans. 90			CHIMNEY TOPS.			Fancy pattern,		
			" 25 lb. cans. 1 87			Iwan's Volcano. 40%			per doz. 80c 85c \$1 15		
			CHAIN AND CHAINS.			CHISELS.					
			Breast Chains.			Cold.			COMPASSES.		
			Doubleslack. doz. pairs, \$8 50			Good quality, 1/2 in. and			Carpenters' 15%		
			With Covert Snaps. 5 80			larger. per lb. 28c			COPPER—See Metals.		
			With Slide. 5 00			Smaller size, per doz. Nets			COPPERS—Soldering.		
			Without Slide. 4 60			Socket, Firmer.			3 lb. and heavier. per lb. 55c		
			Cable Coil Chains			Ohio. Price on Application			2 1/2 lb. 56c		
			Inch. 1 1 1/2			Socket, Framing.			2 lb. 57c		
			Per 100 lbs. 7 75 7 50 7 50			Ohio. Price on Application			1 1/2 lb. 58c		
						Tanged, Firmer.—Barton's.			1 lb. 61c		
						With handles. Net list			CORD.		
						Choppers, See Cutters, Meal.			Picture.		
						CHURNS.			White Wire. 70 & 10%		
						Anti-Bent Wood,			Sash.		
						Gal. 5 7 10			Sampson Spot, No. 7, per doz. \$21.25		
						Each. \$3 90 4 60 4 85			Revenoc No. 7. per doz. \$14.40		
						Belle, Barrel. 65 & 7 1/2					
						Common Dash,			CORKSCREWS.		
						Gal. 5 7			Walker's. 30%		
						Per doz. 17 00 19 00			Williamson's Regular. 35 & 11%		
						CLAMPS.			Williamson's Forged Worm. 40%		
						Adjustable.			COTTERS, SPRING.		
						Martin's. 30%			All sizes (new list) 80%		
						Carpenters'.			COUPLINGS, HOSE.		
						Steel Bar. 10%			Brass. per doz. \$2 25		
						Hose.			COVERS, WAGON—See Tents.		
						Sherman's, brass, 1-in., per doz. 48c			CRADLES, GRAIN.		
						Double, brass, 1-in., " 1 20			Morgan's Grapevine. per doz. \$45 00		

CRAYONS—See Chalk.		ELBOWS—Conductor Pipe.		Wood Pails.		HANGERS.	
CROWBARS.		Galvanized Steel, Tin and Terne. Round Corrugated.		Frazer's, 15lb.\$1.00; 25 lb.\$1.50 each Hub Lightning, 15 lb. 90c; 25 lb. \$1.21 each.		Barn Door.	
Pinch or Wedge Point.....per lb. 8c		Size.		Tin Cans.		U. S. Rolled Bearing.....12 1/2%	
CUTTERS		Doz.		Frazer's		Matchless.....12 1/2%	
Glass.		2-inch.....\$ 3 60		1 1/2 lb. per doz.....\$1 75		Warehouse Tandem, No. 44....33 1/2%	
Woodward.....40%		3-inch.....4 32		3 lb. per doz.....3 25		Conductor P.	
Meat.		4-inch.....7 20		GRINDSTONES.		Iwan's Perfection.....50%	
Enterprise—Nos. 5 10 12		5-inch.....15 00		Family.		Eave Trough.	
Each \$2 50 \$4 25 \$3 75		6-inch.....18 00		Inches.. 7 8 10 12		Imperial.....Net list	
Nos. 22 32		Subject to 60% discount.		Per doz..20 50 21 75 26 25 30 50		Wire.....List plus 5%	
Pipe.		EMERY, TURKISH.		Loose.		Garage Door.	
Saunders', No. 1 2 3		5-lb		Per ton.....Price on application		Right Angle.....50&10%	
Each.....\$1 85 2 75 6 75		Size.....pkgs. 1/2 kegs. kegs.		Mounted.		Sliding Folding.....50%	
Slaw and Kraut.		Flour.....15c 8c 7 1/2c		Ball Bearing.....1 2 3		Receding.....50%	
4-knife Kraut.....\$20 00-55 00		EYES.		Each.....\$4 75 5 00 5 25		Parlor Door.	
3-knife Kraut, 8x27 in.. 13 00-18 00		Bright Wire Screw—See Ooods, B. W.		GUN WADS.		Acme.....per set, \$3 75	
1-knife Slaw.....2 50		Drifting Pick.....60, 10&5%		(See Ammunition).		Ives' Improved....." 3 40	
2-knife Slaw.....3 00		Hooks and Eyes—		GUNS.		Lane's Standard....." 3 50	
Washer.....11 00		Brass, 1 1/2" No. 60..per gross, \$3 50		Iver Johnson Champion Single		Lane's New Model....." 3 10	
DAMPERS, STOVE PIPE.		Iron " " 50.. " 1 60		Barrel Shot Guns.....Net Prices		Le Roy Noiseless.....40&10%	
Ideal		FASTENERS, STORM SASH.		Double Barrel, Hammerless. "		Richards.....25%	
3".....\$1 00		Shroeder's.....per doz. \$1 50		HAPTS, AWL.		Advance.....40&10%	
4".....1 05		Sensible....." 3 00		Brad.		HASPS.	
5".....1 15		FILES AND RASPS.		Common.....per doz. \$0 35		Hinge, Wrought.... Add 50% to list.	
6".....1 25		Delta		Patent, plain top....." 80		With Staples—See Staples.	
7".....2 20		Delta.....30%		Patent, leather top... " 90		HATCHETS.	
8".....3 75		Swiss.....List plus 25%		Sewing.		Crescent.....50%	
10".....6 00		Utility....." net.		Common....." 24		Cast Claw.....per doz. \$1 50@1 85	
DIES AND STOCKS.		Nicholson's—		Patent....." 55		Cast Shingling.. " 1 50@1 85	
Discount.....New List		American.....50&2 1/2%		HAMMERS, HANDLED.		Germantown.....7 1/2%	
DIGGERS.		Arcade.....50&2 1/2%		Blacksmiths, Hand, No. 0, 26 oz.\$11 11		HAY KNIVES.	
Post Hole.		Black Diamond.....40%		Engineers', No. 1, 26 oz.....11 11		See Knives.	
Eureka.....per doz. \$14 50		Eagle.....50&2 1/2%		Farriers', No. 6, 7 oz.....7 23		HAY RACK BRACKETS	
Iwan's Split Handle (Eureka)		Great Western.....50&2 1/2%		Machinists', No. 1, 7 oz.....6 65		Wenzleman's No.1 per doz. sets, \$18 00	
4-ft. Handle.....per doz. 14 00		Kearney & Foot.....50&2 1/2%		Nail.		Wenzleman's No. 2 " " 19 20	
7-ft. ".....20 00		McClellan.....50&2 1/2%		Vanadium, No. 41 1/2, 16 oz.,		Blind.	
Iwan's Perfection (Atlas) " 16 00		Nicholson.....40%		per doz.....\$12 00		Clark's Gravity	
Iwan's Hercules pattern " 16 15		J. Barton Smith.....50&2 1/2%		V. & B., No. 11 1/2, 16 oz. per doz. 10 00		No. 1.....per doz. sets, \$2 25	
See also Augers—Post Hole.		X-F Swiss Pattern.....List plus 10%		Garden City, No. 101 1/2, 16		No. 3....." " 5 75	
Dividers, Wing.....25%		Simonds'.....50%		oz., per doz.....9 00		Gate.	
DOOR CHECKS—See Checks.		Disston's.....50&2 1/2%		Tinner's Riveting, No. 1, 8 oz.,		Clark's.....1 2 3	
DOORS, SCREEN.		Heller's.....60&10%		per doz.....8 00		Hgs & Lth, doz. \$5 50 7 00 9 75	
1/2-in. 4-panel, painted.....Net Prices		FORKS.		Shoe, Steel, No. 1, 13 oz. per doz. 6 88		Hinges only " 4 75 5 50 8 00	
1-in. 4-panel, painted....."		Barley.		Tack.		Latches only. 1 90 1 90	
1 1/2-in. 3-panel, natural pine, fancy....."		Steel, new list.....New Prices		Magnetic.		Screen Door.	
DOOR HANGERS—See Hangers.		Hay.		Per doz.....\$5 63		Cast Iron.....gross \$10 00	
DRILLS.		2-time.....New prices		HAMMERS, HEAVY.		Steel....." 7 00	
Blacksmiths' Twist. (New List)....40%		3. ".....New prices		Heavy Hammers and Sledges.		Spring.	
Breast.		4. ".....New prices		Under 5 lbs.....50%		Chicago.....Add 12 1/2% to list.	
Millers Falls No. 12.....Each, \$46 00		Digging.....New prices		5 lbs. and over.....50&10%		Columbia Dbl. Acting..40&10&5%	
" 112.....26 00		Scoop.....New prices		Masons'.		Gem.....25%	
Hand.		Header.		Single and Double Face.....50%		Ideal Detachable..per gro. \$11 00	
Goodell's Automatic.		3-time.....New prices		HANDLES.		Matchless.....40%	
Nos. 01 03		4. ".....New prices		Auger.		New Idea.....per gro. \$7 20	
Per doz. 12 00 14 40		Manure		Common Assorted....per doz. \$0 75		Oxford.....20%	
Goodell's Single Gear, per doz. 15 75		4-time.....New prices		Pratt's Adjustable, Nos. 1 & 2,		Wrought Iron.	
Goodell-Pratt No. 4 1/2 per doz.		FREEZERS—ICE CREAM.		per doz.....6 00		New Lists.....	
list, less.....35-40%		White Mountain 1-quart.....@		Ives' Adjustable.....per set, 1 35		Light Strap Hinges.....15%	
Goodell-Pratt No. 379 per doz.		" " 2 " @		Axe.....30%		Heavy Strap Hinges.....25&5%	
list, less.....35-40%		Arctic.....1 " @		Chisel.		Light T Hinges.....15&5%	
Reciprocating.		" " 2 " @		Hickory, Tanged, Firmer, Assorted,		Heavy T Hinges.....20&5%	
Goodell's.....per doz. 26 00		" " 4 " @		55c; Large, 85c per doz.		Extra Heavy T Hinges.....25%	
DRIVERS, SCREW.		" " 6 " @		Hickory, Socket Firmer, Assorted,		Screw Hook and Strap.	
Standard.....Nets		Cream Pail.		70c; Large size, 80c per doz.		6 to 12 in.....per 100 lbs. \$7 75	
Lock Ferrule....."		Fairmount.....per doz. \$3 75		Coal Pick.....40%		14 to 20 in....." 7 50	
Champion....."		Marking, Mortise, etc.....Nets		Drifting Pick.....40%		22 to 36 in....." 7 25	
Champion Pattern....."		Wire.		File, assorted, 30c; Large, 35c per doz.		Screw Hook and Eye.	
Clark's Interchangeable....."		Disston's.....25%		Hammer.		1 in.....per doz. pair \$2 60	
Edison....."		GIMLETS.		Adze Eye.....per doz. 40 to \$1 00		1 in....." 3 50	
Reed's Lightning....."		Discount.....35@40%		Blacksmiths'.....45c@1 00		1 in....." 5 00	
Goodell's Spiral....."		Bulk.		Machinists'.....50c@1 00		HOES.	
Yankee Ratchet....."		B Amber.....per lb. 35c		Hay and Manure Fork.....25%		Garden.....Net	
" Spiral....."		A White....." 40c		Screw Driver.		Grub.	
EAVES, TROUGH.		H. S. Amber....." 32c		Assorted....." 6		Extra.....New prices	
60% off Standard List.		Liquid.		Large....." 9		Hazel.....per doz. New prices	
ELBOWS—Stove Pipe.		Army & Navy.....40%		Shovel and Spade.....25%		Ladies' and Boys'.....New prices	
1-piece Corrugated, Uniform.		Le Page's—		Wood Boxes.		Mortar.....New prices	
Doz.		List "A".....37 1/2%		Frazer's.....per gro. \$13 00		Planter's Eye.....New prices	
5-inch.....\$1 40		List "B".....33 1/2%		Hub Lightning.....7 50		Weed.....New prices	
6-inch.....1 50		List "C".....25%		GREASE, AXLE.		HOLLOW WARE—See Ware.	
7-inch.....1 90		Glue.		Wood Boxes.		HOOKS.	
Uniform, Color Adjustable.		B Amber.....per lb. 35c		Frazer's.....per gro. \$13 00		Awning, No. 60.....per gro. 50%	
Doz.		A White....." 40c		Hub Lightning.....7 50		Bell.	
5-inch.....\$1 35		H. S. Amber....." 32c		Screw Driver.		Brown's.....70&5%	
6-inch.....1 45		Liquid.		Assorted....." 6		Jones'.....65&5%	
7-inch.....1 80		Army & Navy.....40%		Large....." 9		Bench.	
Uniform, Color Adjustable.		Le Page's—		Shovel and Spade.....25%		See Stops, Bench.	
Doz.		List "A".....37 1/2%		Wood Boxes.			
5-inch.....\$1 35		List "B".....33 1/2%		Frazer's.....per gro. \$13 00			
6-inch.....1 45		List "C".....25%		Hub Lightning.....7 50			
7-inch.....1 80		Glue.		Screw Driver.			
Uniform, Color Adjustable.		B Amber.....per lb. 35c		Assorted....." 6			
Doz.		A White....." 40c		Large....." 9			
5-inch.....\$1 35		H. S. Amber....." 32c		Shovel and Spade.....25%			
6-inch.....1 45		Liquid.		Wood Boxes.			
7-inch.....1 80		Army & Navy.....40%		Frazer's.....per gro. \$13 00			
Uniform, Color Adjustable.		Le Page's—		Hub Lightning.....7 50			
Doz.		List "A".....37 1/2%		Screw Driver.			
5-inch.....\$1 35		List "B".....33 1/2%		Assorted....." 6			
6-inch.....1 45		List "C".....25%		Large....." 9			
7-inch.....1 80		Glue.		Shovel and Spade.....25%			
Uniform, Color Adjustable.		B Amber.....per lb. 35c		Wood Boxes.			
Doz.		A White....." 40c		Frazer's.....per gro. \$13 00			
5-inch.....\$1 35		H. S. Amber....." 32c		Hub Lightning.....7 50			
6-inch.....1 45		Liquid.		Screw Driver.			
7-inch.....1 80		Army & Navy.....40%		Assorted....." 6			
Uniform, Color Adjustable.		Le Page's—		Large....." 9			
Doz.		List "A".....37 1/2%		Shovel and Spade.....25%			
5-inch.....\$1 35		List "B".....33 1/2%		Wood Boxes.			
6-inch.....1 45		List "C".....25%		Frazer's.....per gro. \$13 00			
7-inch.....1 80		Glue.		Hub Lightning.....7 50			
Uniform, Color Adjustable.		B Amber.....per lb. 35c		Screw Driver.			
Doz.		A White....." 40c		Assorted....." 6			
5-inch.....\$1 35		H. S. Amber....." 32c		Large....." 9			
6-inch.....1 45		Liquid.		Shovel and Spade.....25%			
7-inch.....1 80		Army & Navy.....40%		Wood Boxes.			
Uniform, Color Adjustable.		Le Page's—		Frazer's.....per gro. \$13 00			
Doz.		List "A".....37 1/2%		Hub Lightning.....7 50			
5-inch.....\$1 35		List "B".....33 1/2%		Screw Driver.			
6-inch.....1 45		List "C".....25%		Assorted....." 6			
7-inch.....1 80		Glue.		Large....." 9			
Uniform, Color Adjustable.		B Amber.....per lb. 35c		Shovel and Spade.....25%			
Doz.		A White....." 40c		Wood Boxes.			
5-inch.....\$1 35		H. S. Amber....." 32c		Frazer's.....per gro. \$13 00			
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7-inch.....1 80		Army & Navy.....40%		Screw Driver.			
Uniform, Color Adjustable.		Le Page's—		Assorted....." 6			
Doz.		List "A".....37 1/2%		Large....." 9			
5-inch.....\$1 35		List "B".....33 1/2%		Shovel and Spade.....25%			
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Doz.		List "A".....37 1/2%		Hub Lightning.....7 50			
5-inch.....\$1 35		List "B".....33 1/2%		Screw Driver.			
6-inch.....1 45		List "C".....25%		Assorted....." 6			
7-inch.....1 80		Glue.		Large....." 9			
Uniform, Color Adjustable.		B Amber.....per lb. 35c		Shovel and Spade.....25%			
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Uniform, Color Adjustable.		B Amber.....per lb. 35c		Hub Lightning.....7 50			
Doz.		A White....." 40c		Screw Driver.			
5-inch.....\$1 35		H. S. Amber....." 32c		Assorted....." 6			
6-inch.....1 45		Liquid.		Large....." 9			
7-inch.....1 80		Army & Navy.....40%		Shovel and Spade.....25%			

<div>Box.</div> <div>Inch..... 5 7 10 12</div> <div>Per doz...\$2 50 2 75 3 25 3 85</div> <div>Bush.</div> <div>Common Axe Handle, per doz.\$22 00</div> <div>Chain.</div> <div>Inch. $\frac{1}{8}$ $\frac{1}{4}$ $\frac{3}{8}$ $\frac{1}{2}$</div> <div>Pr 100 \$7 60-8 10 9 75 11 50 12 60</div> <div>Clothes Line.</div> <div>Japanned.....per doz.48c @ 1 40</div> <div>Galvanized..... " 75c @ 2 50</div> <div>Coat and Hat.</div> <div>Common Wire....per gro. 1 25-1 65</div> <div>Conductor.</div> <div>Iwan's Tinned Sickle.....10%</div> <div>Corn.</div> <div>Common, riveted, painted</div> <div>red.....per doz. Nets</div> <div>Little Giant..... " "</div> <div>Gale.</div> <div>See Goods, Bright Wire.</div> <div>Grass.</div> <div>Common Nos. 1 3 5 7</div> <div>Per doz...\$4 50 3 30 3 75 3 25</div> <div>Hammock.</div> <div>With plate.....per doz. 1 10</div> <div>With screw..... " 1 00</div> <div>Lambrequin, or Drapery, per gro. 30c</div> <div>Picture.....50% @ 50% 10%</div> <div>Potato and Manure.....Nets</div> <div>Screw.</div> <div>Brass.....70%</div> <div>(See Goods, Bright Wire.)</div> <div>Seat Spring.....per lb. 5 1c</div>	<div>Standard,</div> <div>Nos..... 1 2</div> <div>Each.....\$0 60 1 00</div> <div>R-W</div> <div>Big Lift.....40%</div> <div>Tiger.....40%</div> <div>KETTLES.</div> <div>Brass.....15%</div> <div>Cauldron.....40%5%</div> <div>Copper.....per lb. 27</div> <div>Maslin.....40%10%</div> <div>Sugar.....50%</div> <div>KNIVES.</div> <div>Beet Topping.</div> <div>Clyde, 9-in. Scimitar Blade, dz. \$3 85</div> <div>California..... " 3 40</div> <div>Butcher.</div> <div>Handles, 6" blade.....Per doz. \$3 25</div> <div>7" "..... " 3 75</div> <div>Beechwood handles, 9" blade.. 4 50</div> <div>10" "..... " 5 25</div> <div>Cooper's Hoop.....15%</div> <div>Corn.</div> <div>Clipper.....per doz. \$1 75</div> <div>Diston's..... " 2 75</div> <div>Earle's..... " 3 00</div> <div>Woodford..... " 2 25</div> <div>Drawing.</div> <div>Standard.....(New List) 15%</div> <div>Adjustable.....15%</div> <div>Barton's Carpenters'.....15%</div> <div>Hay.</div> <div>Iwan's Solid Socket.....doz.\$13 00</div> <div>Heath's..... " 13 00</div> <div>Iwan's, Sickle Edge..... " 15 50</div> <div>Iwan's, Imp'v'd Serrated. " 15 75</div> <div>Hedge.</div> <div>Challenge.....per doz. \$6 00</div> <div>Diston's..... " 3 75</div> <div>Mincing.</div> <div>Common, Single..... " 60</div> <div>Common, Double..... " 90</div> <div>Streeter, 4-blade..... " 1 30</div> <div>Streeter, 6-blade..... " 2 00</div> <div>Putty.</div> <div>Common.....per doz. \$0 75 @ 1 50</div> <div>Lander's..... " 1 75 @ 2 50</div> <div>Scraping.</div> <div>Beech Handle..... 90 @ 1 10</div> <div>Lander's..... 5 50 @ 6 50</div>	<div>LINING, STOVE.</div> <div>Bricks.....per crate, 42c</div> <div>MACHINES.</div> <div>Boring.</div> <div>Without Augers</div> <div>Angular...per doz. \$3 00 4 40</div> <div>Upright... " 2 60 4 00</div> <div>Leather Riveting.</div> <div>Chicago, Pomeroy...per doz. \$9 00</div> <div>Excelsior..... " 2 00</div> <div>Handy..... " 2 00</div> <div>Little Giant..... " 3 00</div> <div>Pony, Pomeroy..... " 7 20</div> <div>MAIL BOXES.</div> <div>See Boxes.</div> <div>MALLETS.</div> <div>Carpenters'.</div> <div>Fibre Head, No. 2, per doz. \$16 50</div> <div>" No. 3 " 19 50</div> <div>" No. 4 " 28 50</div> <div>Round Hickory..... " \$3 00-5 00</div> <div>" Lignumvita.. " 6 25-10 50</div> <div>Square Hickory..... " 3 50-5 50</div> <div>" Lignumvita.. " 8 00-12 00</div> <div>Tinners'.</div> <div>Hickory..... " 2 25</div> <div>MATS.</div> <div>Door.</div> <div>National Rigid.....50%10%5%</div> <div>Acme Steel Flexible.....50%</div> <div>Stove.</div> <div>No. 2.....per gro. Nets</div> <div>No. 1..... " "</div> <div>No. 1 Asbestos Toasters, or</div> <div>wire-covered Stove Mats,</div> <div>with handle.....per doz. 1 10</div> <div>No. 2 Asbestos Toasters, with</div> <div>ring.....per doz. 60</div> <div>MATTOCKS.</div> <div>Plumbs.....25%</div>	<div>NAIL PULLERS.</div> <div>See Pullers.</div> <div>NAIL SETS.</div> <div>See Sets.</div> <div>NETTING, POULTRY.</div> <div>Galvanized before weaving...40%10%</div> <div>Galvanized after weaving.....40%</div> <div>NIPPERS.</div> <div>End Cutting.</div> <div>Stubb's Pattern, Inches. 5 6</div> <div>Per dozen.....\$4 65 6 75</div> <div>End and Diagonal Cutting.</div> <div>Swedish Side. Inches.. 5 6</div> <div>Per dozen.....\$4 50 5 75</div> <div>Hoof.</div> <div>Heller's.....40%10%</div> <div>V. & B.....55%5%</div> <div>NOZZLES.</div> <div>Hose.</div> <div>Magic.....per doz. \$9 50</div> <div>Diamond..... " 5 75</div> <div>NUTS, HOT PRESSED.</div> <div>Square Tapped.</div> <div>\$1.05 off per 100 lbs.</div> <div>Hexagon Tapped.</div> <div>85c off per 100 lbs.</div> <div>OILERS</div> <div>Chase Pattern.</div> <div>Brass and Copper.....25-10%</div> <div>Zinc.....35%</div> <div>Engineers'.</div> <div>Tin.....per doz. \$7 00 @ 9 00</div> <div>Machine.</div> <div>Common.....per doz. \$0 85</div> <div>OPENERS.</div> <div>Box.</div> <div>See Box Chisels</div> <div>Can.</div> <div>Delmonico.....per doz. \$1 30</div> <div>Never Slip..... " 65</div> <div>Crate.</div> <div>V. & B..... " 7 25-11 00</div> <div>OUTFITS, COBBLING</div> <div>Combination.....per doz.\$16 00</div> <div>Economy..... " 8 50</div> <div>Family..... " 14 50</div> <div>PAILS.</div> <div>Cream.</div> <div>14-qt., without gauge,per doz. \$9 50</div> <div>18-qt., " " " 11 00</div> <div>20-qt., " " " 11 75</div> <div>Sap.</div> <div>10-qt., IC Tin.....per doz. \$4 00</div> <div>12 " " " 5 50</div> <div>Stock.</div> <div>Galv'd. qts. 14 16 18 20</div> <div>Per doz. \$9 75 10 75 12 75 14 50</div> <div>Water.</div> <div>Galvanized, qts. 10 12 14</div> <div>Per doz. \$5 75 6 50 7 25</div> <div>Wood.</div> <div>Cable, 2-Hoop.....per doz. Nets</div> <div>Cable, 3-Hoop..... " Nets</div> <div>Cedar, 3-Hoop,brass.. " Nets</div> <div>PANS.</div> <div>Dripping.....Net</div> <div>Fry.</div> <div>Common.....Nets</div> <div>Acme..... " "</div> <div>Roasting.</div> <div>Paxton, Nos. 1 2 3 4</div> <div>Per doz.Nets</div> <div>Neverburn..... " "</div> <div>Savory No. 200.....per doz. \$8 40</div> <div>PAPER.</div> <div>Building.</div> <div>Plain.....per 100 lbs.</div> <div>Tarred..... " "</div> <div>Tarred Felt..... " "</div> <div>Red Rosin, 20-lb.....per roll 72c</div> <div>Red Rosin, 25-lb..... " 90c</div> <div>Red Rosin, 30-lb..... " \$1 08</div> <div>Sand and Emery.</div> <div>No. 1, per ream, best grade... \$6 00</div> <div>No. 1, per ream, cheaper grade. 5 40</div> <div>Wrapping.</div> <div>Express.....100 lbs. Nets</div>
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PARERS.	TINNERS.	PUNCHES.	SAWS.
Apple. Goodell's.....per doz. \$10 80 Turntable....." 11 40 White Mountain...." 8 40 Reading, No. 78...." 11 40	Hollow.....Net list Solid.....each, 10c	Conductors. No. 22.....per doz. \$3 00 Machine.....per lb. 25	Band. E. C. Atkins & Co. Prices on applic'n
Potato. Goodsell's Saratoga, 10 1/2 in., dz. 6 50 Goodsell's Saratoga, 5 in., dz. 5 50	PLUMBS AND LEVELS. Common.....Nets Cook's.....40% Davis' Iron.....25% Davis' Inclinator.....15%	Saddlers'. Common.....per doz. 1 50 to 5 00	Butch. Disston's.....New nets Jackson's.....New nets
PICKS. Adze Eye Ore.....22 1/2% Drifting and Poll Picks.....22 1/2% Plumbs, Railroad.....22 1/2% Surface.....22 1/2%	POKERS, STOVE. Wr't Steel, str't or bent per doz. \$0 75 Nickel Plated, coil han's " 1 10	PURTY. Strictly pure.....per 100 lbs. \$4 25	Butchers'. E. C. Atkins & Co. Prices on applic'n Disston's.....New nets
PINCERS. Carpenters', cast steel. Inches... 6 8 10 12 Per doz...\$3 75 4 75 6 25 7 00 Blacksmiths'.....45% Heller's.....40%	POLISH. Burnshine. 1/2-pint.....doz. \$1 10 1-pint....." 1 50 1-pint....." 2 60 1-quart....." 5 00 1-gal....." 9 00 1-gal....." 15 00	RAIL. Barn Door. Matchless, 1-in.....5c Matchless, 1 1/2-in.....7c Storm King.....5c	Circular. E. C. Atkins & Co. Prices on applic'n Disston's.....New nets Hiles.....New nets Simonds.....New nets
PINS. Clothes. Common.....per box of 5 gro. \$0 95	Metal. Wizard, 6 oz.....per gross \$17 40 " 1 pt....." 19 20 " 1 qt....." 3 40 " 1 gal....." 9 60 " 1 gal....." 15 60	Sliding Door. Bronzed wrought iron...per ft. 8 1/2c	Compass. E. C. Atkins & Co. Prices on applic'n Common.....New nets Disston's.....New nets
Picket Fluted, 15-in.....per doz. \$1 10 Fluted, 21-in....." 1 60 Spiral....." 1 90	Stove Black Eagle Paste, 1-lb. cans, per gross.....\$30 00 Black Eagle Paste, 5-lb. cans, per case.....4 90 Black Jack Paste, #10, 8 oz., per gross.....11 40 Black Eagle Liquid, 6 oz., per gross.....13 20	Garden. Steel, Bow, 12-inch Teeth...\$8 50 Steel, Bow, 14-inch " 9 25 Malleable Iron, 12-in. " 4 75 Malleable Iron, 14-in. " 5 00	Cross-Cut. E. C. Atkins & Co. Prices on applic'n Disston's.....New nets Simonds.....New nets
PIPE. Conductor. Standard Gauge Conductor Pipe, plain or corrugated. Not Nested.....45&5% off Nested solid.....50% off L. C. L. to Dealers:— Terms 60 days; 2% Cash 10 days. Factory shipments generally delivered.	FIRE POTS. Clayton & Lambert's, each \$4 00@6 00 Gate City.....each, 6 25 Gena.....each, \$6 75@8 50	Hay. Wood, 10 Teeth.....\$4 00	Dehorning. Disston's.....New nets
Stove. Per 100 Joints 29-Gauge, 3-inch.....\$15 50 " 4-inch.....16 50 " 5-inch.....17 70 " 6-inch.....18 75 " 7-inch.....21 20	POWDER. See Ammunition.	Law. 20 Teeth.....per doz. \$5 50	Hack. Disston's.....New nets Simonds, Box Lots.....New nets Star.....New nets
T-Joint, Made-up. 6-inch.....per 100 \$31 00	PRESSES, FRUIT AND JELLY. Enterprise Manufacturing Co.....25%	RASPS—See Files.	Hand and Rip. E. C. Atkins & Co. Prices on applic'n Disston's No. 7.....New nets Disston's Nos. 8, D8, 12, 76, 112, D100, and 120.....New nets Keystone.....New nets
Furnace Pipe. Double Wall Pipe and Fittings 30% Single Wall Pipe, Round Pipe Fittings.....30% Galvan'd and Black Iron Pipe, Shoes, etc.....20%	PRIMERS. See Amunition.	RAZORS—SAFETY. Gillette.....per doz. \$45 00 Auto Strop.....45 00 Gem.....8 40 Gem (3 doz. lots).....8 00 Ever Ready.....8 40 Ever Ready (3 doz. lots).....8 00	Keyhole. Disston's.....New nets
PLANES. Stanley Iron Bench.....net	PRUNERS. Disston's Pole.....per doz. \$18 00 Water's Improved.....60%	RAZOR STROPS. Star (Honing).....50%	Miter Box. E. C. Atkins & Co. Prices on applic'n
PLATES, TIN. See Metals in Column 1.	PULLERS. Cork. Daisy.....each, \$3 10 Phoenix....." 1 40 Quick and Easy....." 2 70	REGISTERS. Japanned, Bronzed & Plated.....30% Solid Brass or Bronze Metal..Net list plus.....10% Baseboard.....30%	Narrow Band. Simonds'.....New nets
PLIERS. Giant, Button's—Nets	Nail. Giant.....per doz. 14 50 Never-Slip....." 17 00	REGISTER FACES. Japanned, Bronzed and Plated. 4x6 to 14x14.....30% 14x14 to 38x42.....50%	Panel. E. C. Atkins & Co. Prices on applic'n Disston's No. 7.....New nets
Cutting. Bernard's.....New Prices Lodi.....New Prices Paragon.....New Prices	PULLEYS. Awning—Jap'd.....10% Clothes Line.....10% Hay Fork. Iron Wheel, 5-in.....per doz. 2 50 Wood Wheel, 6-in....." 2 65 Wood Wheel, 6-in., pass knot,per doz. 3 00	REVOLVERS. Iver Johnson Safety Automatic Hammer.....New Nets Hammerless....." I. J. Model 1900....."	Pruning. Disston's.....New nets
Fencing. Black Bull.....All Nets Farmers' Choice.....All Nets Russell's.....All Nets	Sash. Common.....Net Common-Sense, 2-in.....Net Empire Pattern, 2-in.....Net Ideal.....Net Steel.....Net	RINGS AND RINGERS. Bull. Copper.....2 1/2-in. 3-in. Per doz.....\$2 75 \$3 25 Rea's Improved Self- Piercing copper, doz. 3 40 Steel, per doz.....1 50 1 80	Rift. Simonds'.....New nets
Flat and Round Nose. Bernard's.....New Prices Lodi.....New Prices Paragon.....New Prices	PUMPS. Pitcher Spout. Nos.....1 2 3 4 Each.....Nets	Hog. Blair's Rings.....per doz. \$ 75 Blair's Ringers....." 1 00 Brown's Rings....." 72 Brown's Ringers....." 1 00 Hill's Ringers....." 1 00 Hill's Ring, boxes....." 72 Major Rings....." 60 Perfect Ringers....." 1 50 Wolverine Rings....." 1 65 Wolverine Ringers....." 1 10	Wood. E. C. Atkins & Co. Prices on applic'n Common.....New nets Clover leaf.....New nets
Gas.—Inches 7 8 10 12 14 Per doz. 5 00 5 50 7 00 8 00 10 00	Spray. Midget Junior.....per doz. 3 75 New Misty....." 6 00 Crescent....." 6 50	Fruit Jar. White.....per lb. 30c	SAW BUCKS—See Bucks.
		Key. Split, round.....per doz. \$0 17 Split, square....." 32 Ball, round....." 40	SAW SETS—See Sets.
		RIVETS. Copper Belt.....Add 15% to list Coppered Iron.....30% Tinners'.....30% Hame.....per lb. \$0 17 Slotted Clinch.....per doz. 60c@1 10 Tubular. Nos. 1 and 2 assorted sizes, 50 in box.....doz. 75c Nos. 1 and 2 assorted sizes, 10 in box.....doz. 1 40	SAW TOOLS—See Tools.
		RIVET SETS.	SAW FRAMES. Common, plain.....per doz. \$1 50 Common painted....." 2 10
		ROPE. 1/2, 5-16 in. Com. on reels, per lb. Market 1/2, 5-16 in. Com. in coils. " Price	SCALES. Counter. Pelouze.....40&10%
		Sisal. 1st Quality.....23 1/2c No. 2.....20 1/2c	SCISSORS. Star.....60%
		Pure Manila. 1st quality, base.....per lb. 33 1/2c Hardware Grade.....32 1/2c	SCOOPS. Grain. 1/2 bu. "Hercules".....per doz. 3 70 1-bu. "Hercules"....." 5 00
			SCRAPERS. Box. Triangular, No. 6.....per doz. \$6 25
			Cabinet. Cast Steel, Nos. 2 1/2x5 3x5 3 1/2x6 Per doz.....\$1 10 1 25 1 80
			Road. Cubic ft. 7 5 3 With runners, ea. \$7 00 6 50 6 20
			SCREEN DOOR HINGES. Cast iron.....gross, \$13 00 Steel....." 9 50
			SCREWS. Bench. Iron, ins. 1 1 1/2 1 3/4 1 1/2 \$9 75 11 50 13 75 21 50 Wood, white maple.....per doz. 6 00 Hand—Wood.....35% Hand Rail.....22 1/2% Jack.....30-35% Lag or Coach—all sizes, gimlet pointed.....40%
			Saw—Centennial. Nos.....1 2 3 4 Per doz.....47c 55c 75c 90c
			Wood. F. H. Bright.....70-10-10% R. H. Blued.....65-10-10% F. H. Jap'd.....62 1/2-10% F. H. Brass.....42 1/2-10-5% R. H. Brass.....40-10-5% R. H. Nickel Plated.....57 1/2-10%
			SCYTHES. Clipper, grass.....per doz. \$13 50 Honest Dutchman....." 13 75

SETS.		SQUARES.		TAPES, MEASURING.		WARE.	
Nail.		Steel and Iron.		Asses' Skin.		Stone Hollow Ware.	
Square head..... per doz. \$1 25		Nets new list		Lufkin's Steel..... List Net		Plain or Unground..... 50%	
Cup point, knurled.. " 1 15		(Add, for bluing, \$3.00 per doz., net.)		Lufkin's Metallic. List to list plus 20%		Ground Ware..... 4%	
Rivet.		Mitre..... Nets		Lufkin's Pocket..... 10%		Enameled Ware..... 33 1/2%	
Farmers'..... per doz. \$2 10		Try.....		THERMOMETERS.		Scotch Bowls..... 605&%	
Tinners'..... 25%		Try and Bevel.....		Tin Case..... per doz. 80c@ \$ 1 25		Country Hollow Ware, per 100 lbs. \$3 00	
Saw.		Try and Miter.....		Wood Back..... " \$2 00@ 12 00		White Enameled Ware.	
Aiken's Pattern..... per doz. \$6 50		Fox's..... per doz. \$6 00		Glass..... " 12 00		Maslin Kettles..... 50%	
Diston's Monarch..... " 7 20		Winterbottom's..... 10%		TIES.		Neverbreak Flat and Round	
Diston's X-Cut..... " 13 50		SQUEEZERS, LEMON.		Bale.		Bottom Kettles..... 45%	
Leach's..... " 80		Common Wood..... per doz. \$0 70		Single Loop, carload lots..... 75&7%		Covered Ware	
Nash's Hand..... " 3 15		Porcelain Lined, Wood..... " 1 25		" less than car lots 70&15%		Tin'd and Turn'd..... 35&10%	
Nash's X-Cut..... " 4 20		Boss, malleable iron..... " 1 20		Cow—See "Chains."		Enameled..... 45&10%	
Stillman's Lever..... " 1 30		Iron frame, porc'n bowl..... " 1 90		TOOLS, SAW.		Glue Pots.	
Stillman's X-Cut..... " 2 50		Iron Frame, glass bowl..... " 2 35		Disston's Universal..... 40%		Tinned..... Add 15% to list	
SHARPENERS, SKATE.		Little Giant, tin'd iron..... " 4 00		Disston's Universal..... 40%		Enameled..... 30%	
Diamond..... per doz. \$1 60		Drum, japanned..... " 3 60		TRAPS.		Cherry Blossom and Chrysolite. 50%	
Perfect..... 1 20		Drum, nickel plated..... " 4 50		Mole.		WASH BOARDS—See Boards.	
SHAVES, SPOKE.		Blind.		Reddick's..... per doz. \$9 50		WASHERS.	
Iron..... per doz. \$1 10@1 85		Barbed..... per lb. 21@22c		Game with Chains.		Standard O. G. cast iron... per lb. 3 10	
Wood..... " 2 75@4 75		Butler Tub..... " 16@19c		Victor No. 1..... \$1 95		Wrought steel in 5-lb. boxes, per lb.:	
Stanley's..... Nets		Fence—		Oneida Jump No. 1..... 2 66		In. 3/16 1/2 5/16 3/4 1 1 1/2 1 3/4 2 1/2 3 1/2 4 1/2 5 1/2	
SHEARS.		Polished..... per 100 lbs. \$5 45		Newhouse No. 1..... 4 29		18c 16c 15c 13c 12c 11c 11c 11c 11c	
Pruning.		Galvanized..... 6 15		Mouse and Rat.		WEDGES.	
Buckeye, No. 1..... per doz. \$5 75		Netting.		Out O'Sight Mouse..... \$ 8 00		Ax..... per doz. Nets	
Buckeye, No. 2..... " 7 40		Galvanized..... per 100 lbs. 6 50		" " Rat..... 15 00		Galling..... per lb. "	
California Pat., 9-in..... " 3 20		Wrought.		" " Mole..... 100 00		Saw..... " 8 1/2	
California Pat., 10-in..... " 4 00		Wrought Staples, Hasps and		#44 Pocket Gopher..... 20 00		WEANERS.	
Draw Cut, No. 3..... " 13 75		Staples, Hasps, Hooks and		Victor Mouse..... 2 60		Calf.	
Draw Cut, No. 4..... " 16 50		Staples, and Hooks and		Hold Fast Mouse..... 2 60		Fuller's, per doz..... \$2 00 to \$2 50	
Henry's Pat 0..... 01 14 012		Staples..... 50&10%		Victor Rat..... 11 00		Tyler's Safety, per doz. 1 85 to 2 40	
Per doz..... \$1 40 2 10 2 90 2 80		Extra heavy..... 35%		Hold Fast Rat..... 11 00		Carroll's, per doz. 3 00 to 3 75	
Star..... per doz. \$4 00		STEELYARD.		Official Rat..... 13 50		Hoosier, per doz. 3 50 to 4 60	
Sheep—No. BBA,		Discount 25%.		Wood Choker Mouse, 4 Holes 11 00		Shaw Perfected..... 3 00 to 3 75	
Inches..... 6 6 1/2 7		STONES.		TROWELS.		WEIGHTS.	
Reg. Grip..... \$11 25 11 50 12 00		Hindustan..... per lb. New Nets		Clover Leaf..... 30%		Hitching..... per lb. Nets	
Nar. Grip., doz. 11 00 11 25 12 25		More Grit..... " "		Brade's..... 15&5%		Sash—f.o.b. Chicago	
Star..... 60%		Washita..... " "		Diston's..... 30%		Ton lots, per ton..... \$52 00	
Tinners'—See Snips.		Emery.		Rose's..... Net		Smaller lots, per ton..... 54 00	
SHEAVES, SLIDING DOOR.		No. 126..... per doz. New Nets		Plasterers'.		WHEEL BARROWS.	
Common.		Oil—Mounted.		Clover Leaf..... 40%		No. 4 Tubular Steel..... @ \$8 00	
Inches..... 3 4 5		Arkansas Hard No. 7 per doz. New Nets		Diston's..... 25%		Common Tray or Stave Tray @ 2 50	
Per set..... \$1 40 1 75 2 40		Arkansas Soft..... " "		W. & McP..... Net		Angle leg, garden..... @ 4 50	
Half field's.		Washita No. 717..... " "		TRUCKS.		WHEELS.	
Per set..... \$1 80 2 10 2 75 4 25		Oil—Unmounted.		Bag..... each, \$3 75		Carborundum..... 50%	
SHELLS—See Ammunition.		Arkansas Hard..... per lb. New Nets		Warehouse or store.		Emery..... 60%	
SHELLERS, CORN.		Arkansas Soft..... " "		No..... 1 2 3		Well. Ins..... 8 10 12	
Union..... per doz. \$6 75		Lily White..... " "		Half Ironed..... \$5 00 6 50 9 40		Per doz..... \$5 50 7 25 8 50	
SHIELDS.		Queer Creek..... " "		Full Ironed..... 5 75 7 50 11 00		12 in. heavy hoisting, per doz. \$25 00	
Expansion Bolt Shields..... 60%		Washita..... " "		TUBS, WASH.		WIRE.	
SHOES.		Scythe.		Standard, Wood.		Brass.	
Conductor..... 60%		Black Diamond..... per gro. New Nets		Nos..... 3 2 1 large		In coils..... Nets	
SHOT—See Ammunition.		Crescent..... " "		Per doz..... \$9 50 11 25 12 75 15 50		In 1-lb. spools, new list..... Nets	
SHOVELS AND SPADES.		Green Mountain..... " "		Galvanized.		Broom—Tinned..... Nets	
Coal.		LaMoille..... " "		No..... 1 2 3		Cable—Same price as Barbed Wire.	
No. 2, Woodford..... per doz. \$5 50		Extra Quinnebog..... " "		Per doz..... 15 20 13 25 20 00		Copper.	
No. 182..... 6 00		Red End..... " "		TWINE.		In coils..... Nets	
Ames', new list..... Discount, 12 1/2%		STOPS, BENCH.		3-ply Cotton Wrapping.....		1-lb. spools, new list..... Nets	
Neverbreak, hollow bck, blk., Nets		Hotchkiss'..... per doz. New Nets		4 " Extra Wrapping.....		Fence—Smooth..... An'eal'd Galv'd	
National..... " " "		Stearns'..... " "		4 " Hyv. Wrapping.....		Nos. 6 to 9, less than	
Buckeye..... " " "		STOPPERS, FLUE.		4 " Wrapping on tubes.....		car, per 100 lbs. \$4 25 \$4 95	
Mohawk..... " " "		Common..... per doz. \$1 10		4 " cones.....		Hair—New List..... 40&10%	
Bar Drain & Ditching		Gem, flat, No. 3..... " 1 00		India Hemp, 1-lb. balls, No. 18.		Market.	
Iwan's Perfection..... \$30 00		Gem, No. 1..... " 1 10		2-ply Jute, 1-lb. balls.....		Market Quotations	
Railroad, etc.		STOVE PIPE—See pipe.		Seins.		Bright, full bdles..... "	
Black Diamond..... per doz. Net		STOVE BOARDS—See Boards.		Soft..... per lb. Market		Bright, broken bdles..... "	
Crescent..... " "		STOVE POLISH—See Polish.		Med..... " Quotation		Coppered, full bdles..... "	
Keystone..... " "		STRAPS.		Hard..... " "		Coppered, broken bdles..... "	
Star..... " "		Skate..... per doz. 85c & 1 20		Staging, 1-lb. ball, size 21.....		Tinned, full bdles..... "	
Hollow Back..... " "		STRETCHERS.		" " " 24.....		Tinned, broken bdles..... "	
Ames', new list..... Discount, 12 1/2%		Bullard's..... per doz. \$3 90		" " " 27.....		Picture—In coils..... 80% @ 80&10%	
Snow.		Excelsior..... " 5 25		Bagging, 1-lb. ball.....		In 5-lb. spools..... per lb. 26c	
Galvanized, with wood han-		Malleable Iron..... " 70		3-ply, "B" in hanks.....		WRENCHES.	
dle, No. 56..... \$1 45		Perfection..... " 6 30		4 " " " " " "		Acme Standard..... 50&10%	
No. 55..... 1 55		King..... " 4 50		4 " " " " " "		Alligator No. 1..... 90c net	
Alaska Steel.		Wire.		4 " " " " " "		Always Ready..... 30%	
D-Handle..... per doz. \$3 50		O. S. Elwood, No. 1..... per doz. Nets		4 " " " " " "		Agricultural..... 50&5%	
Long Handle..... 3 00		O. S. Elwood, No. 2..... " "		4 " " " " " "		Ellis Adjustable..... 25%	
SINKS.		SWIVELS.		4 " " " " " "		Malleable "S"..... per lb. 08c	
Painted, 16x24..... Net		Malleable Iron..... per lb. \$0 10		Fodder or Lath.		Malleable..... " 08c	
Enameled, White, 16x24..... " "		Wrought Steel..... per gro. 4 50		130 strand..... "		Stillson Pipe..... 60%	
Wrought Steel.		TACKS.		VISES.		Bemis & Call's:	
Painted, 16x24..... " "		Bill Posters' 6-oz., 25 lb. boxes,		Phoenix..... 30%		Adjustable S, 15%; Adjustable S	
SLEDGES—See Hammers.		per lb. 19c		Pocenix, Oval Slide,		Pipe, 15%; Briggs' Pattern, 10%	
SNAPS, HARNESS.		Upholsters' 6-oz., 25-lb. boxes,		Inches.... 2 1/2 3 3 1/2 4 1/2		Combination Bright..... 20%	
Covered Spring..... Add 30%		per lb. 20c		Each..... \$1 25 1 50 1 85 2 75		Steel Handle Nut..... 20%	
Judd's Pattern..... Add 33 1/4% to list		SWIVELS.		Parker's Parallel..... 33 1/4%		Combination Black..... 20%	
SNATHS.		Malleable Iron..... per lb. \$0 10		Parker's Victor..... List+15%		Merrick Pattern..... 20%	
Double Ring, Bush..... per doz. \$9 75		Wrought Steel..... per gro. 4 50		Parker's Swivel Base..... 20%		Knife Handle Pattern.	
Patent Loop, Bush..... " 10 00		TACKS.		Parker's Re-inforced..... 20%		No. 62, Screw Wrench. List, plus 5%	
Patent Loop, Grass..... " 8 75		Bill Posters' 6-oz., 25 lb. boxes,		Parker's X Series..... 20%		No. 60, Steel Handle.....	
SNIPS, TINNERS'.		per lb. 19c		Parker's Combination..... 33 1/4%		WRINGERS.	
Clover Leaf..... 40&10%		Upholsters' 6-oz., 25-lb. boxes,		Solid Box..... 40&5%		No. 790, Guarantee..... per doz. \$58 00	
National..... 40&10%		per lb. 20c		Williamson's Universal..... 60%		No. 770, Bicycle..... " 54 00	
Star..... 50%		SWIVELS.		WRINGERS.		No. 110, Domestic..... " 47 50	
SOLDER—See Metals.		Malleable Iron..... per lb. \$0 10		No. 790, Guarantee..... per doz. \$58 00		No. 110, Domestic..... " 47 50	
SPRINGS, DOOR.		Wrought Steel..... per gro. 4 50		No. 110, Brighton..... " 43 50		No. 740, Bicycle..... " 54 00	
Perfect.		TACKS.		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
Nos..... 2 3 4 5 6 7		Bill Posters' 6-oz., 25 lb. boxes,		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
Per doz..... 55c 60c 65c 75c 90c 1 00		per lb. 19c		No. 78PB Guarantee..... " 91 00		WRINGERS.	
Reliance.		Upholsters' 6-oz., 25-lb. boxes,		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Light..... per doz. \$1 55		per lb. 20c		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
Medium..... 2 10		SWIVELS.		No. 740, Bicycle..... " 54 00		No. 22, Domestic..... " 47 50	
Heavy..... 3 20		Malleable Iron..... per lb. \$0 10		No. 22, Pioneer..... " 43 50		No. 770B, Bicycle..... " 82 00	
Torrey's..... per doz. 1 65		Wrought Steel..... per gro. 4 50		No. 78PB Guarantee..... " 91 00		WRINGERS.	
SHARPENERS, SKATE.		TACKS.		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Diamond..... per doz. \$1 60		Bill Posters' 6-oz., 25 lb. boxes,		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
Perfect..... 1 20		per lb. 19c		No. 740, Bicycle..... " 54 00		No. 22, Domestic..... " 47 50	
SHAVES, SPOKE.		Upholsters' 6-oz., 25-lb. boxes,		No. 22, Pioneer..... " 43 50		No. 770B, Bicycle..... " 82 00	
Iron..... per doz. \$1 10@1 85		per lb. 20c		No. 78PB Guarantee..... " 91 00		WRINGERS.	
Wood..... " 2 75@4 75		SWIVELS.		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Stanley's..... Nets		Malleable Iron..... per lb. \$0 10		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
SHEARS.		Wrought Steel..... per gro. 4 50		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
Pruning.		TACKS.		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
Buckeye, No. 1..... per doz. \$5 75		Bill Posters' 6-oz., 25 lb. boxes,		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Buckeye, No. 2..... " 7 40		per lb. 19c		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
California Pat., 9-in..... " 3 20		Upholsters' 6-oz., 25-lb. boxes,		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
California Pat., 10-in..... " 4 00		per lb. 20c		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
Draw Cut, No. 3..... " 13 75		SWIVELS.		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Draw Cut, No. 4..... " 16 50		Malleable Iron..... per lb. \$0 10		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
Henry's Pat 0..... 01 14 012		Wrought Steel..... per gro. 4 50		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
Per doz..... \$1 40 2 10 2 90 2 80		TACKS.		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
Star..... per doz. \$4 00		Bill Posters' 6-oz., 25 lb. boxes,		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Sheep—No. BBA,		per lb. 19c		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
Inches..... 6 6 1/2 7		Upholsters' 6-oz., 25-lb. boxes,		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
Reg. Grip..... \$11 25 11 50 12 00		per lb. 20c		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
Nar. Grip., doz. 11 00 11 25 12 25		SWIVELS.		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Star..... 60%		Malleable Iron..... per lb. \$0 10		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
Tinners'—See Snips.		Wrought Steel..... per gro. 4 50		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
SHEAVES, SLIDING DOOR.		TACKS.		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
Common.		Bill Posters' 6-oz., 25 lb. boxes,		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Inches..... 3 4 5		per lb. 19c		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
Per set..... \$1 40 1 75 2 40		Upholsters' 6-oz., 25-lb. boxes,		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
Half field's.		per lb. 20c		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
Per set..... \$1 80 2 10 2 75 4 25		SWIVELS.		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
SHELLS—See Ammunition.		Malleable Iron..... per lb. \$0 10		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
SHELLERS, CORN.		Wrought Steel..... per gro. 4 50		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
Union..... per doz. \$6 75		TACKS.		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
SHIELDS.		Bill Posters' 6-oz., 25 lb. boxes,		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Expansion Bolt Shields..... 60%		per lb. 19c		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
SHOES.		Upholsters' 6-oz., 25-lb. boxes,		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
Conductor..... 60%		per lb. 20c		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
SHOT—See Ammunition.		SWIVELS.		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
SHOVELS AND SPADES.		Malleable Iron..... per lb. \$0 10		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
Coal.		Wrought Steel..... per gro. 4 50		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
No. 2, Woodford..... per doz. \$5 50		TACKS.		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
No. 182..... 6 00		Bill Posters' 6-oz., 25 lb. boxes,		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Ames', new list..... Discount, 12 1/2%		per lb. 19c		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
Neverbreak, hollow bck, blk., Nets		Upholsters' 6-oz., 25-lb. boxes,		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
National..... " " "		per lb. 20c		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
Buckeye..... " " "		SWIVELS.		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Mohawk..... " " "		Malleable Iron..... per lb. \$0 10		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
Bar Drain & Ditching		Wrought Steel..... per gro. 4 50		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
Iwan's Perfection..... \$30 00		TACKS.		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
Railroad, etc.		Bill Posters' 6-oz., 25 lb. boxes,		No. 790, Guarantee..... per doz. \$58 00		No. 770, Bicycle..... " 54 00	
Black Diamond..... per doz. Net		per lb. 19c		No. 110, Domestic..... " 47 50		No. 110, Brighton..... " 43 50	
Crescent..... " "		Upholsters' 6-oz., 25-lb. boxes,		No. 22, Domestic..... " 47 50		No. 22, Pioneer..... " 43 50	
Keystone..... " "		per lb. 20c		No. 770B, Bicycle..... " 82 00		No. 78PB Guarantee..... " 91 00	
Star..... " "		SWIVELS.		No. 790, Guarantee..... per doz. \$58			

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Niagara Machine & Tool Works,
Buffalo, N. Y.

Brass and Cropper.

Hussey & Co., C. G.,
Pittsburgh, Pa.

Ceiling—Metal.

Burton Co., W. J., Detroit, Mich.

Friedley-Voshardt Co.,
Chicago, Ill.

Milwaukee Corrugating Co.,
Milwaukee, Wis.

Whitaker-Glessner Co.,
Wheeling, W. Va.

Cleaners—Hand.

Nickel Plate Stove Polish Co.,
Chicago, Ill.

Clips—Damper.

Stover Mfg. & Engine Co.,
Freeport, Ill.

Coppers—Soldering Gas.

Allen Co., Inc., L. B., Chicago, Ill.

Cornices.

Burton Co., W. J., Detroit, Mich.

Friedley-Voshardt Co.,
Chicago, Ill.

Milwaukee Corrugating Co.,
Milwaukee, Wis.

Cut-Offs—Rain Water.

Sullivan-Gelger Co.,
Indianapolis, Ind.

Dampers.

Stover Mfg. & Engine Co.,
Freeport, Ill.

Sullivan-Gelger Co.,
Indianapolis, Ind.

Elbows and Shoes—Conductor.

Dieckmann, Ferdinand,
Cincinnati, Ohio.

Elevators.

Kimball Bros. Co.,
Council Bluffs, Iowa.

Enamel—Iron.

Nickel Plate Stove Polish Co.,
Chicago, Ill.

Fence Gates.

American Steel & Wire Co.,
Chicago, Ill.

Files.

Delta File Wks., Philadelphia, Pa.
Heller Bros. Co., Newark, N. J.

Flux—Aluminum.

Roesch, Geo. E., Aurora, Ill.

Flux—Soldering.

Allen Co., Inc., L. B., Chicago, Ill.

Furnaces—Soldering.

Ashton Mfg. Co., Newark, N. J.

Bernz, Otto, Newark, New Jersey.

Burgess Soldering Furnace Co.,
Columbus, Ohio.

Clayton & Lambert Mfg. Co.,
Detroit, Mich.

Hammers.

Atkins & Co., E. C.,
Indianapolis, Ind.

Handles—Boiler.

Berger Bros. Co.,
Philadelphia, Pa.

Heaters—School Room.

Haynes-Langenberg Mfg. Co.,
St. Louis, Mo.

Monroe Fdy. & Furnace Co.,
Monroe, Mich.

Peerless Foundry Co.,
Indianapolis, Ind.

Standard Furnace & Supply Co.,
Omaha, Neb.

Standard Heating Co.,
Chicago, Ill.

Heaters—Warm Air.

Haynes-Langenberg Mfg. Co.,
St. Louis, Mo.

Henry-Miller Foundry Co.,
Cleveland, Ohio.

Hess-Snyder Co., Massillon, Ohio.

Mahoning Foundry Co.,
Youngstown, Ohio.

Monroe Fdy. & Furnace Co.,
Monroe, Mich.

Peerless Foundry Co.,
Indianapolis, Ind.

Schill Bros. Co., Crestline, Ohio.

Schwab & Sons Co., R. J.,
Milwaukee, Wis.

Standard Furnace & Supply Co.,
Omaha, Neb.

Standard Heating Co.,
Chicago, Ill.

Thatcher Furnace Co.,
Chicago—New York.

Tubular Heating & Ventilating
Co., Philadelphia, Pa.

XXth Century Heating & Ventila-
lating Co., Akron, Ohio.

Wise Furnace Co., Akron, Ohio.

Wrought Iron Range Co.,
St. Louis, Mo.

Horse Shoes.

American Steel & Wire Co.,
Chicago, Ill.

Jobbers—Hardware.

Bullard & Gormley Co.,
Chicago, Ill.

Clark-Smith Hdw. Co., Peoria, Ill.

Lath—Expanded Metal.

Milwaukee Corrugating Co.,
Milwaukee, Wis.

Machinery—Culvert.

Bertsch & Co.,
Cambridge City, Ind.

Machines—Crimping.

Bertsch & Co.,
Cambridge City, Ind.

Niagara Machine & Tool Wks.,
Buffalo, N. Y.

Machines—Razor Blade.

Hyfield Mfg. Co., New York, N. Y.

Machines—Sheet Metal.

Bertsch & Co.,
Cambridge City, Ind.

Dreis & Krump Mfg. Co.,
Chicago, Ill.

Niagara Machine & Tool Wks.,
Buffalo, N. Y.

Machines—Stove Pipe.

Hemp & Co., St. Louis, Mo.

Metals—Perforated.

Harrington & King Perforating
Co., Chicago, Ill.

Milers.

Friedley-Voshardt Co.,
Chicago, Ill.

Motorcycles.

Johnson's Arms & Cycle Works,
Iver, Fitchburg, Mass.

Nails—Slatting.

Hussey & Co., C. G.,
Pittsburgh, Pa.

Nails—Wire.

American Steel & Wire Co.,
Chicago, Ill.

Ornaments—Sheet Metal.

Friedley-Voshardt Co.,
Chicago, Ill.

Patterns—Stove.

Cleveland Castings Pattern Co.,
Cleveland, Ohio.

Cope-Swift Co., Inc.,
Detroit, Mich.

Quincy Pattern Co., Quincy, Ill.

Vedder Pattern Wks., Troy, N. Y.

Pipe and Fittings—Furnace. Henry-Miller Fdry. Co., Cleveland, Ohio Michigan Safety Furnace Pipe Co., Detroit, Mich Standard Furnace & Supply Co., Omaha, Neb Stearns Register Co., Detroit, Mich	Roofing—Iron and Steel. American Sheet & Tin Plate Co., Pittsburgh, Pa. Burton Co., W. J., Detroit, Mich. Philadelphia, Pa. Cortright Metal Roofing Co., Philadelphia, Pa. Friedley-Voshardt Co., Chicago, Ill. Inland Steel Co., Chicago, Ill. Milwaukee Corrugating Co., Milwaukee, Wis. Stark Rolling Mill Co., Canton, Ohio. Whitaker-Glessner Co., Wheeling, W. Va.	Specialties—Hardware. Atkins & Co., E. C., Indianapolis, Ind. Delta File Wks., Philadelphia, Pa. Heller Bros. Co., Newark, N. J. Hyfield Mfg. Co., New York, N. Y. Lufkin Rule Co., Saginaw, Mich. Rock Island Mfg. Co., Rock Island, Ill. Stover Mfg. & Engine Co., Freeport, Ill. Statuary. Friedley-Voshardt Co., Chicago, Ill.	Torches. Allen Co., Inc., L. B., Chicago, Ill. Ashton Mfg. Co., Newark, N. J. Bernz, Otto, Newark, N. J. Burgess Soldering Furnace Co., Columbus, Ohio. Clayton & Lambert Mfg. Co., Detroit, Mich. Troughs—Eaves. Berger Bros. Co., Philadelphia, Pa. Burton Co., W. J., Detroit, Mich. Milwaukee Corrugating Co., Milwaukee, Wis. Whitaker-Glessner Co., Wheeling, W. Va.
Pipe and Fittings—Stove. Hemp & Co., St. Louis, Mo. Michigan Safety Furnace Pipe Co., Detroit, Mich. Sullivan-Geiger Co., Indianapolis, Ind. Whitaker-Glessner Co., Wheeling, W. Va.	Rules. Lufkin Rule Co., Saginaw, Mich.	Sticks—Soldering. Allen Co., Inc., L. B., Chicago, Ill.	Ventilators. Berger Bros. Co., Philadelphia, Pa. Bicalky Fan Co., Buffalo, N. Y. Friedley-Voshardt Co., Chicago, Ill. Standard Ventilator Co., Lewisburg, Pa.
Pipe—Conductor. Berger Bros., Co., Philadelphia, Pa. Burton Co., W. J., Detroit, Mich. Clark-Smith Hdw. Co., Peoria, Ill. Dieckman, Ferdinand, Cincinnati, Ohio. Friedley-Voshardt Co., Chicago, Ill. Hussey & Co., C. G., Pittsburgh, Pa. Whitaker-Glessner Co., Wheeling, W. Va.	Saws. Atkins & Co., E. C., Indianapolis, Ind. Schools— Sheet Metal Pattern Drafting. National School of Sheet Metal Pattern Drafting, St. Louis, Mo.	Stoves and Ranges. Schill Bros. Co., Crestline, Ohio. Thatcher Furnace Co., Chicago-New York. Stove Pipe Reducer. Sullivan-Geiger Co., Indianapolis, Ind.	Vises. Rock Island Mfg. Co., Rock Island, Ill. Waterers—Stock. Rock Island Mfg. Co., Rock Island, Ill.
Polish—Metal. Nickel Plate Stove Polish Co., Chicago, Ill.	Screens—Perforated Metal. Harrington & King Perforating Co., Chicago, Ill.	Systems—Ventilating. Bicalky Fan Co., Buffalo, N. Y.	<p>¶ ADVERTISING is to-day the mightiest factor in the business world. It is an evolution of modern industrial competition. It is a business builder, with a potency that goes beyond human desire. It is something more than a "drummer" knocking at the door of the consumer—something more than mere salesmanship-on-paper. It is a positive, creative force in business. It builds factories, skyscrapers and railroads. It makes two blades of grass grow in the business world where only one grew before. It multiplies human wants and intensifies human desires. It furnishes excuse to timorous and hesitating ones for possessing the things which under former conditions they could easily get along without.</p> <p>¶ Better begin to advertise at once. Every day of waiting is a day wasted.</p>
Polish—Stove. Nickel Plate Stove Polish Co., Chicago, Ill.	Sheets—Black and Galvanized. American Sheet & Tin Plate Co., Pittsburgh, Pa. Inland Steel Co., Chicago, Ill. Stark Rolling Mill Co., Canton, Ohio. Whitaker-Glessner Co., Wheeling, W. Va.	Tacks, Staples, Spikes. American Steel & Wire Co., Chicago, Ill.	
Posts—Steel Fence. American Steel & Wire Co., Chicago, Ill.	Sheets—Toncan Metal. Stark Rolling Mill Co., Canton, Ohio.	Tapes. Lufkin Rule Co., Saginaw, Mich.	
Punches. Bertsch & Co., Cambridge City, Ind. Niagara Machine & Tool Wks., Buffalo, N. Y.	Sheets—Vismara. Inland Steel Co., Chicago, Ill.	Tiles and Shingles—Metal. Burton Co., W. J., Detroit, Mich. Cortright Metal Roofing Co., Philadelphia, Pa. Milwaukee Corrugating Co., Milwaukee, Wis. Whitaker-Glessner Co., Wheeling, W. Va.	
Rasps. Delta File Wks., Philadelphia, Pa. Heller Bros. Co., Newark, N. J.	Shotguns. Johnson's Arms & Cycle Works, Iver, Fitchburg, Mass.	Tin—Perforated. Harrington & King Perforating Co., Chicago, Ill.	
Registers—Warm Air. Henry-Miller Foundry Co., Cleveland, Ohio. Standard Furnace & Supply Co., Omaha, Neb. Stearns Register Co., Detroit, Mich.	Skylights. Burton Co., W. J., Detroit, Mich.	Tinplate. American Sheet & Tin Plate Co., Pittsburgh, Pa. Whitaker-Glessner Co., Wheeling, W. Va.	
Repairs—Stove and Furnace. Omaha Stove Repair Works, Omaha, Neb.	Snips—Tin Smiths'. Niagara Machine & Tool Works, Buffalo, N. Y.	Tools—Carpenters'. Atkins & Co., E. C., Indianapolis, Ind. Lufkin Rule Co., Saginaw, Mich.	
Revolvers. Johnson's Arms & Cycle Works, Iver, Fitchburg, Mass.	Solder. Allen Co., Inc., L. B., Chicago, Ill.	Tools—Sheet Metal. Bertsch & Co., Cambridge City, Ind. Dreis & Krump Mfg. Co., Chicago, Ill.	
Roasters. Whitaker-Glessner Co., Wheeling, W. Va.	Solder—Aluminum. Roesch, Geo. E., Aurora, Ill.	Niagara Machine & Tool Works, Buffalo, N. Y.	
Rolls—Forming. Bertsch & Co., Cambridge City, Ind. Niagara Machine & Tool Works, Buffalo, N. Y.	Soldering Iron—Self-Heating. Allen Co., Inc., L. B., Chicago, Ill. Soldering Supplies. Allen Co., Inc., L. B., Chicago, Ill.	Tools—Tin Smiths'. Bertsch & Co., Cambridge City, Ind. Dreis & Krump Mfg. Co., Chicago, Ill. Niagara Machine & Tool Works, Buffalo, N. Y.	

WANTS AND SALES

For paid yearly subscribers, **AMERICAN ARTISAN AND HARDWARE RECORD** will insert under this head advertisements of not more than fifty words **WITHOUT CHARGE**. Employers wishing to secure employees, parties desiring to purchase or sell business, secure partners or to exchange, etc., will find that these pages offer excellent opportunities to satisfy their wants. Clerks and tinsmiths looking for situations will find it to their advantage to use these columns. Those who respond to these announcements please mention that they "READ THE ADVERTISEMENT IN AMERICAN ARTISAN AND HARDWARE RECORD."

BUSINESS CHANCES

For Sale—Modern sheet metal and furnace shop in Southwestern Wisconsin. Doing good business. Address A-23, care of **AMERICAN ARTISAN AND HARDWARE RECORD**, 620 South Michigan Boulevard, Chicago, Illinois. 4-3t

For Sale—Sheet metal business, good set tinner's tools and small stock of goods. Only shop in one of the best towns in central Michigan. Good surrounding country. If you are a hustler this is a great chance to secure a fine business. Address F. S. Seymour, Bangor, Michigan. 3-2t

For Sale—Plumbing, heating and sheet metal business in southern Wisconsin town of 3,500. Prospects for spring good. Capital necessary \$3,000. A real chance for a real man in above lines. Address A-24, care of **AMERICAN ARTISAN AND HARDWARE RECORD**, 620 South Michigan Boulevard, Chicago, Illinois. 4-3t

For Sale—Established retail hardware business in a progressive city of northern Illinois. Clean stock; invoice about \$15,000. Business good for \$40,000 to \$45,000 annually. Owner has other interests that requires undivided attention. Address A-17, care of **AMERICAN ARTISAN AND HARDWARE RECORD**, 620 South Michigan Boulevard, Chicago, Illinois. 2-3t

For Sale—Good chance to buy a book that will prove of much value to pattern cutters. If you want to be real efficient you should know Triangulation as Applied to Pattern Cutting. This book, Triangulation, is a complete treatise on the subject and contains practical solutions of problems of frequent occurrence in sheet metal shops. Triangulation has 272 pages and is illustrated with 124 engravings in lines and half-tone, including many reproductions of photographs of sheet metal models made expressly for this work. Price is \$2.50. Order yours today. Ask for complete list of books and patterns that are of great value to sheet metal workers. All books sent prepaid. No books exchanged. Address Daniel Stern, 620 South Michigan Boulevard, Chicago, Illinois.

HELP WANTED

Wanted—A first-class tinner. Address Benton Sheet Metal and Furnace Works, 120 Water Street, Benton Harbor, Michigan. 3-3t

Wanted at Once—An A-1 tinner, plumber; one who can also do heating of all kinds. Steady job. Prefer a married man. Must be strictly sober and congenial. Give full particulars and references. Address A. L. Spradling, Hoopes-ton, Illinois. 3-3t

Wanted—A good tinner and plumber to do shop and country work. Will pay good wages the year around and will give a per cent of the year's profits to the right man. Located in a town of about 1,600. Please address A-19 care of **AMERICAN ARTISAN AND HARDWARE RECORD**, 620 South Michigan Boulevard, Chicago, Illinois. 3-3t

HELP WANTED

Wanted—Tinner and plumber. Steady job. State wages in first letter. J. T. Victor, Remsen, Iowa. 3-3t

Wanted—All around tinner, plumbing and implement man. Give reference and full particulars, and wages expected. Winzer Brothers, Troy, Kansas. 4-3t

Wanted—Sheet metal worker, one who understands cornice and skylight work. Livingston Sheet Metal Works, 211 South Main Street, Livingston, Montana. 4-2t

Wanted—Good all around tinner. Address A-18, care of **AMERICAN ARTISAN AND HARDWARE RECORD**, 620 South Michigan Boulevard, Chicago, Illinois. 3-3t

Wanted—We have a first-class job in a first-class country town for a first-class tinner, furnace man and plumber. Address Dooley Hardware Company, Rockville, Indiana. 4-3t

Wanted—First-class tinner and furnace man, one who can do steam and hot water heating. Steady employment to right man. Randolph Hardware Company, Randolph, Wisconsin. 4-3t

Wanted—Tinner and plumber who wants a steady job the year around at 40c per hour. Must be capable of doing any odd jobs that come into country shop. Dedrick and Marty, Brodhead, Wisconsin. 3-3t

Wanted—All around tinner and furnace man. Steady work. In your reply please give full particulars as to past experience, age, married or single and wages wanted. Address Box 423, Bloomington, Illinois. 3-3t

Wanted at Once—All around sheet metal worker and plumber, one who can also do hot, steam and hot water heating. Steady employment for the right man. Married man preferred. Luther E. Alkire, Hoopeston, Illinois. 1-5t

Wanted—Tinsmiths and blow pipe men. Men who can do all around work preferred. In reply state experience and wages expected. Address A-21, care of **AMERICAN ARTISAN AND HARDWARE RECORD**, 620 South Michigan Boulevard, Chicago, Illinois. 4-1t

Wanted—All around tinner, plumber and furnace man to work in shop in connection with hardware store. A good, steady position in a good town in Western Minnesota. Give full particulars about yourself and wages expected in your reply. K. Knutsen, Appleton, Minnesota. 3-3t

Wanted—An all around tinsmith. Must be capable of taking charge of small shop, do estimating and work from drawing and plans. All-year-round-job for right man. Do not apply unless first-class mechanic and sober. Thiede-Mueller Hardware Company, Fort Dodge, Iowa. 3-3t

Wanted—A sheet metal and furnace man by April 1st. We want a man capable of taking care of making and installing ventilation and warm air furnaces. He must be strictly sober. Opportunity for getting a financial interest in the business will be given the right man. Roell Heating and Ventilating Company, Minot, North Dakota. 4-3t

Wanted—Stove and furnace salesman for Central and Eastern Wisconsin by an Illinois Manufacturer of high grade line. Give us your experience and qualifications fully, and salary expected. Correspondence confidential. Address A-22, care of **AMERICAN ARTISAN AND HARDWARE RECORD**, 620 South Michigan Boulevard, Chicago, Illinois. 4-2t

SITUATION WANTED

Situation Wanted by a first-class sheet metal and furnace workman. Some plumbing and hardware experience. Open for service at once. Address H. J. Ester, 725 West Main Street, Washington, Missouri. 3-3t

Situation Wanted by first-class tinner and furnace man. North Dakota or Montana preferred. Kindly address A-20, care of **AMERICAN ARTISAN AND HARDWARE RECORD**, 620 South Michigan Boulevard, Chicago, Illinois. 3-3t

Situation Wanted as tinner-plumber. Can also do lead work, estimate and figure jobs, in fact anything that comes in the shop. Am 36 years old and single. Have had 21 years' experience. The job must be steady. State wages in first letter. Lee Balie, 1613 11th Street, Moline, Illinois. 4-3t

SITUATION WANTED.

Situation Wanted—As salesman in hardware where merit and industry will gain promotion. Have successfully managed retail hardware for three years. Am 32 years of age and am married. Only those willing to pay for services rendered need reply. Address O. E. E., 823 North Jefferson Avenue, Mason City, Iowa. 2-3t

TINNERS' TOOLS

Wanted—8 foot steel cornice brake in good condition. Peru Sheet Metal Shop, 924 Peoria Street, Peru, Illinois. 4-3t

Wanted—One tea kettle stake with 4 heads. Must be in good order and cheap. R. S. Bridgman, Fredonia, Pennsylvania. 4-3t

Wanted to Buy—New or second hand angle roller, angle shear and lever punch, for about 3/16" metal. H. H. Bain Metal Works, Shreveport, Louisiana. 4-3t

For Sale—One ash croft die stock with 1/4", 3/8", 1" and 1 1/4" block dies and pipe guides; one hand power wiring machine with standard; one hand power 20" groover with standard; four extra standards; one small raising hammer; one large raising hammer; one 32" solid mandrel stake; one double seaming stake; one round head stake with 4" head. C. R. Oberholtzer, 509 West Maumee Street, Angola, Indiana. 26-ufn

Wanted—Tinsmiths and sheet metal workers to get acquainted with two of the best books ever written for them. You don't like to read dry stuff that is uninteresting and hard to understand. That's where these books shine. They tell you what you want to know and in a style you like. They give you all the "Kinks" of the trade. Volume 1 has 119 pages and about 100 illustrations. Vol 2 has 120 pages and 114 illustrations, and has special articles on repairing automobiles and erecting metal ceilings. These books are small and easily fit in your pocket. The "Kinks" books are durably bound in cloth and sell for \$1.00 each. All books postage prepaid. No books exchanged. Address Daniel Stern, 620 South Michigan Boulevard, Chicago, Illinois.

BOOKS

For Sale—To those who wish to save time and money, J. W. Conchar's **PRICE MAKER AND PROFIT DETERMINER** is just the thing you need. This handy volume will be of the greatest value to you in regulating the list and selling prices of any article. The tables in this book are arranged to show the sold cost and the net profit and the percentage that must be added to the actual warehouse or store cost to bring the result desired. 170 pages. Cloth \$2.00, postage prepaid. Address Daniel Stern, 620 South Michigan Boulevard, Chicago, Illinois.

Wanted—Heating and Ventilating Engineers to read a book written especially for them by James D. Hoffman, M. E. **HAND BOOK FOR HEATING AND VENTILATING ENGINEERS**. This is a well arranged book covering all classification of Ventilation, Humidity and Heat Losses, Furnace Heating, Hot Water and Steam Heating, Plenum Warm Air Heating, Mechanical Vacuum Heating, District Hot Water and Steam Heating, Electrical Heating, Temperature Control. Size is 4 1/2 x 6 1/2 in. 320 pages. Price, \$3.50. With **AMERICAN ARTISAN** one year (52 issues), \$4.75. One of the best books written covering this subject. All books sent prepaid. No books exchanged. Daniel Stern, 620 South Michigan Boulevard, Chicago, Illinois.

Wanted—Warm Air Heater Installers to read **PROGRESSIVE FURNACE HEATING**. A practical manual of designing, estimating and installing modern systems for heating and ventilating buildings with warm air. Profusely illustrated. The whole range of the subject is concisely and fully covered. There is nothing highly technical in this book, no methods not easily comprehended and applied. Size, 6x9 inches, 280 pages, 189 illustrations. By Alfred G. King. Price, \$2.50. With **AMERICAN ARTISAN** one year (52 issues), \$3.85. Get a copy of this book now. Read it in your spare time and learn more about your important business. All books sent prepaid. No books exchanged. Daniel Stern, 620 South Michigan Boulevard, Chicago, Illinois.